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INDUSTRIAL ACCIDENTS
MEXICAN LABOR IN THE UNITED STATES

DEPARTMENT OF COMMERCE AND LABOR

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BULLETIN

OF THE

BUREAU OF LABOR

No. 78—SEPTEMBER, 1908

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DEPARTMENT OF COMMERCE AND LABOR

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BULLETIN
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SEPTEMBER, 1908.

INDUSTRIAL ACCIDENTS.

BY FREDERICK L. HOFFMAN.

Industrial accidents are casualties occurring chiefly among wage-earners employed in industrial pursuits, this term including all manufacturing and mechanical industries and trade and transportation. A narrow definition limits this class of accidents to factories and workshops, but this seems hardly warranted by the conditions under which the industrial activity of the nation presents itself as a problem in statistical analysis. The scientific definition of the term is, however, of small importance, and the whole subject is practically comprehended in the term "dangerous trades," which implies that the risk, or liability to accident or injury, is because of personal exposure more or less inseparable from the employment.

ACCIDENT FREQUENCY IN THE UNITED STATES.

Thus far no national investigation of the subject of industrial accidents has been made to determine the true accident risk in industry, and the statistical data extant are more or less fragmentary and of only approximate value. The ever increasing legislation for the protection of life and health in industry and the demand for more stringent employers' liability legislation emphasize the need of a more careful consideration of the facts by selected industries than has thus far been possible. In an article on the subject, contributed to the "New Encyclopedia of Social Reform" (1908), it was estimated by the writer that the number of accidents among men em-

ployed in manufacturing industries for 1906 was 208,300, of which number about 5,000 were fatal and the remainder more or less serious. This estimate, however, was exclusive of accidents in mines and quarries, transportation by land and sea, and all general employments.

For the purpose of arriving at an estimate of the total number of fatal accidents occurring annually among occupied males in the United States at the present time the percentage of occupied males 15 years of age or over is assumed to be the same as at the census of 1900, namely, 30.005 per cent of the total population. The total population of the United States on June 1, 1908, was estimated by the Bureau of the Census to be 86,895,359, and 30.005 per cent of this total, or 26,072,952, represents approximately the number of occupied males 15 years of age or over at that date. The degree of fatal accident frequency (inclusive of homicides, but exclusive of suicides) among occupied males 10 years of age or over was returned by the census of 1900 as 1.13 per 1,000 in the registration States, and in the absence of other data relating to this subject this proportion is considered to represent approximately the accident frequency among all occupied males 15 years of age or over in the United States.^a By applying this ratio to the total above estimated (26,072,952) it is found that the number of fatal accidents among occupied males 15 years of age or over is approximately 29,462 in 1908. If allowance, however, is made for the probably higher degree of fatal accident frequency in the western portion of the United States, on account of dangerous mining and lumbering industries, the actual number of fatal accidents among occupied males in 1908 is probably somewhere between 30,000 and 35,000. This estimate of the total accident mortality for 1908 of adult males in gainful occupations is the best possible at the present time, and, while there are no very conclusive trade mortality statistics for this country which sufficiently discriminate between accidents which are the result of general conditions and those which are the direct result of the employment, it is probably safe to estimate that half of the accidents are more or less the immediate result of dangerous industries or trades.

^a The number of deaths from accidents among occupied males in the registration States is not given separately for those 15 years of age or over or for those 10 to 14 years of age, inclusive. While the fatal accident frequency in the latter group is probably lower than among adults, the number of occupied males from 10 to 14 years of age represents but a small proportion of all occupied males (only 3.7 per cent for the United States, according to figures shown in the census report on Occupations for 1900); hence it is concluded that the fatal accident frequency among occupied males 15 years of age or over approximates very closely to that among those 10 years of age or over.

THE PROBLEM OF ACCIDENT NOTIFICATION.

It has been pointed out in a report of a British departmental committee, appointed to inquire into the notification of industrial accidents that the term "accident" in itself conveys no exact significance. "Accidents," it is said, "gradually shade off into what are not accidents in the ordinary sense of the word, and there is no hard or fast line which determines when a bruise or a cut, for instance, becomes an accident. A distinguishing line can only be drawn artificially by fixing some kind of standard, as has been done by Parliament in every case in which it has imposed upon employers the obligation to report, and it is clear that unless some line is drawn the application of the system will be left to uncertainty, and uniformity in the administration of the act will be rendered impossible." It is evident that some such definition is imperative to avoid misleading conclusions. There is not so much difficulty in the reporting of fatal accidents since most of the deaths, as a rule, occur at the time of the happening of the accident, or very shortly thereafter. The real difficulty lies in an exact definition of nonfatal accidents, which, as such, "gradually shade off into what are not accidents," which leaves a large amount of necessary discretion with those who are by law required to report them. Since the conditions vary considerably with different industries, an exact or trustworthy comparison of the nonfatal accident ratio in one industry often can not be made with the corresponding return of nonfatal accidents in some other industry. This, for illustration, is true of railroad transportation and coal mining, since in the former nonfatal accidents are reported in more detail than in the latter, which leaves a reasonable question of doubt as to the actual number and degree of minor injuries in coal mining operations. Since it is also almost impossible to keep always in mind the widely different statutory requirements in accident reports, the most useful and conclusive investigations are those which are limited to fatal accidents, about which there can never be more than a minor degree of uncertainty or inaccuracy, due to causes and conditions fairly uniform and quite well understood.

DEGREE OF ACCIDENTAL INJURY.

The degree of accidental injury is of necessity one of the most important elements of the industrial accident problem. The most extensive investigation into this subject has been made by the New York State Department of Labor for the five years ending with 1906. Out of 39,244 accidents in factories and workshops reported upon in detail, 80.8 per cent caused temporary disablement, 16.8 per cent caused per-

manent disablement, 2.2 per cent proved fatal, and 0.2 per cent were ill defined. Of the 80.8 per cent of accidents causing temporary disablement, 19.0 per cent were cuts, 18.9 per cent were lacerations, 18.0 per cent were bruises, 7.1 per cent were burns, 5.8 per cent were fractures, 3.9 per cent were sprains, and 8.1 per cent were other injuries. The details regarding accidents causing permanent disablement were not as fully reported upon and the returns are, therefore, less conclusive. Of the 16.8 per cent of accidents causing permanent disablement, 14.8 per cent were not specified as to the degree of the injury, but 0.6 per cent resulted in loss of one or both hands or feet, 0.6 per cent in internal injury, 0.4 per cent in loss of one or both limbs, and about the same proportion in the loss of one or both eyes. A critical analysis, by Mr. F. S. Crum, regarding the nature and extent of the injuries reported to the Bureau of Factory Inspection of New York State for the period mentioned, has been published in the *Spectator* (an insurance periodical) for March 19, 1908. From that paper the following table has been prepared:

NUMBER AND PER CENT OF INDUSTRIAL ACCIDENTS IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1906.

[From an analysis by Mr. F. S. Crum, in the *Spectator* for March 19, 1908, compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1906.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Lacerations.....	7,427	18.9
Burns.....	2,788	7.1
Cuts, etc.....	7,469	19.0
Bruises.....	7,081	18.0
Sprains and dislocations.....	1,533	3.9
Fractures.....	2,257	5.8
Other injuries.....	3,167	8.1
Total, temporary disablement.....	31,722	80.8
Permanent disablement:		
Partial or complete loss of eyes.....	170	.4
Partial or complete loss of limbs.....	156	.4
Partial or complete loss of hands or feet.....	229	.6
Internal injuries.....	211	.6
Other injuries.....	5,814	14.8
Total, permanent disablement.....	6,580	16.8
Degree of injury not stated.....	78	.2
Fatal accidents.....	864	2.2
Total accidents of all degrees.....	39,244	100.0

A similar analysis of the reports of the British factory inspectors for the period from 1895 to 1906, includes 196,047 accidents to males and 23,120 accidents to females. According to this analysis, which is limited to the adult population, or persons 18 years of age or over, the proportion of fatal accidents in all industrial casualties was 4.8 per cent for males and 0.6 per cent for females.

NUMBER AND PER CENT OF INDUSTRIAL ACCIDENTS IN THE UNITED KINGDOM TO PERSONS OF EACH SEX 18 YEARS OF AGE OR OVER, BY DEGREE OF INJURY, FOR THE PERIOD 1895 TO 1906.

[Compiled from the Annual Reports of the Chief Inspector of Factories and Workshops of the United Kingdom, 1895 to 1906.]

Degree of accidental injury.	Accidents to—			
	Males.		Females.	
	Total.	Per cent.	Total.	Per cent.
Fatal.....	9,406	4.8	134	0.6
Nonfatal:				
Loss of right hand or arm.....	580	.3	65	.3
Loss of left hand or arm.....	513	.3	45	.2
Loss of part of right hand.....	9,096	4.6	1,644	7.1
Loss of part of left hand.....	9,531	4.9	1,126	4.9
Loss of any part of leg or foot.....	882	.4	14	.1
Fracture of limbs or bones of trunk.....	6,026	3.1	392	1.7
Fracture of hand or foot.....	4,668	2.4	573	2.5
Loss of sight of one or both eyes.....	483	.2	104	.4
Injuries to head and face.....	20,090	10.2	2,281	9.8
Burns and scalds.....	26,024	13.3	641	2.8
Lacerations, contusions, etc.....	108,748	55.5	16,101	69.6
Total, nonfatal.....	186,641	95.2	22,986	99.4
Total, fatal and nonfatal.....	196,047	100.0	23,120	1.000

The results of this analysis are most valuable and instructive. It is a matter of regret that similar data are not available for the manufacturing States of this country. American factory inspectors' reports, as a rule, are unfortunately very defective and inconclusive. Even in the few States requiring the publication of accident statistics the lack of completeness and the absence of uniformity in method of accident reports precludes the possibility of an accurate interstate comparison. In Massachusetts during the ten years ending with 1905 there were reported 17,478 persons injured in industrial accidents, of whom 429, or 2.5 per cent, were injured fatally. It is estimated that about one-third of the accidents in that State have no connection with the occupation. In Rhode Island during the period from 1895 to 1904 there were reported among males 792 accidents in industries, of which 44, or 5.5 per cent, were fatal. Among females in the same State 200 accidents in industries were reported, of which none were fatal. The rule in Rhode Island is that all fatal accidents and all other accidents which prevent the injured person from returning to work within two weeks after the injury must be reported. Of course, under this rule, a large number of minor accidents are not reported, although such injuries may have a very important economic, social, and medical significance. In Michigan, during the period from 1901 to 1905, 2,219 accidents in industries were officially reported by factory inspectors, of which 12.1 per cent were fatal, 13.0 per cent serious, 47.9 per cent severe, and 27.0 per cent slight.

Many accidents, of course, occur which diminish the chances of subsequent longevity, even though they are not fatal, or even very serious at the time of their occurrence. Extensive investigations have

been made in Germany, where an enormous mass of statistical material is under continuous observation and a matter of accurate record, but the differences in industrial conditions do not warrant the use of German data for valid conclusions regarding corresponding occupations in the United States. It, however, may safely be affirmed that preventable accidents in industrial occupations cause a most serious impairment of industrial efficiency and a resulting diminution of health and longevity, which for private or government insurance purposes requires to be most carefully taken into account. This subject, aside from its importance as a national problem, is of considerable interest to accident and liability insurance companies, whose business has been growing with great rapidity during the last decade, and to life insurance companies, as a factor affecting materially the mortality experience during the early years of policy duration.

FATAL ACCIDENT FREQUENCY IN THE UNITED STATES.

It is necessary, however, at the outset of any extensive inquiry into this subject to take into consideration certain elementary facts of human mortality and accident frequency. As previously stated the normal rate of accident frequency from all causes among occupied males aged 15 years or over in the United States is approximately 1.13 per 1,000. Out of every 100 deaths from all causes among males 15 years of age or over, 9.1 per cent were deaths from accidents, but the proportionate mortality differs materially according to age and occupation. Thus, at ages 15 to 24 the proportion of accidental deaths is 18.2 per cent, at ages 25 to 34 it is 15.3 per cent, decreasing to 13.0 per cent at ages 35 to 44, and to 5.9 per cent at ages 55 to 64, and only 3.3 per cent at ages 65 or over. How many of these accidents were the result of occupation it is not possible to determine with absolute accuracy, but it is safe to assume that about one-half of the deaths from accidents among males are the result of industrial employments.

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG MALES IN THE REGISTRATION AREA OF THE UNITED STATES, BY AGE GROUPS, FOR THE PERIOD 1900 TO 1906.

[Compiled from special reports of the Bureau of the Census on Mortality Statistics, 1900 to 1906.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	134,700	24,512	18.2
25 to 34 years.....	186,530	28,550	15.3
35 to 44 years.....	205,930	26,848	13.0
45 to 54 years.....	205,497	19,526	9.5
55 to 64 years.....	218,151	12,852	5.9
65 years or over.....	435,228	14,270	3.3
	1,386,036	126,567	9.1

CAUSES OF ACCIDENTS IN THE UNITED STATES.

The census of 1900 contains a table which may be utilized to arrive at an approximate estimate of the proportion which industrial accidents bear to the mortality from accidents in general. According to this table 28,073 deaths from accidents among males aged 15 years or over were enumerated in 1900, and 6,719 deaths from accidents among females. Since the proportion of the sexes in the population is about the same, even the mere difference in absolute numbers is decidedly suggestive. Arranged by causes, the disparity in the accident liability of the sexes becomes still more apparent, as follows:

NUMBER AND PER CENT OF DEATHS FROM ACCIDENTS AMONG MALES AND FEMALES 15 YEARS OF AGE OR OVER IN THE UNITED STATES, BY CAUSES, 1900.

[Compiled from the report of the Bureau of the Census on Vital Statistics for 1900. Persons whose ages are reported as unknown are not included.]

Cause of death.	Males.		Females.	
	Number.	Per cent.	Number.	Per cent.
Burns and scalds.....	757	2.7	1,449	21.6
Drowning.....	3,125	11.1	353	5.3
Exposure and neglect.....	209	.7	116	1.7
Gunshot.....	3,003	10.7	329	4.9
Machinery.....	300	1.1	7	.1
Railroad.....	5,619	20.0	395	5.9
Suffocation.....	450	1.6	147	2.2
Sunstroke.....	437	1.6	120	1.8
Surgical operations.....	197	.7	439	6.5
Wounds.....	598	2.1	35	.5
Other causes.....	13,378	47.7	3,329	49.5
Total.....	28,073	100.0	6,719	100.0

The foregoing table emphasizes the higher mortality from accidents among males, due to drowning, gunshot wounds, machinery, railroad casualties, suffocation, sunstroke, and wounds generally. The most important difference, however, is in the large number of unclassified accidents, which include, in all probability, the majority of deaths more or less the immediate result of industrial employment.

SCOPE OF THE PRESENT DISCUSSION.

For the present purpose industrial accidents have been classified broadly according to industry into five groups: (1) Factories and workshops; (2) electrical industries; (3) mines and quarries; (4) transportation by rail; (5) transportation by water, including the fisheries. For each of these groups a few typical employments have been selected to emphasize the problem of accident risk to life and health in particular industries. No extended discussion of the causes of accidents, the degree of injury, or the methods of prevention is possible at the present time. The sources of statistical information are chiefly the statistical reports of the Bureau of Factory Inspection of the State of New York, the accident mortality statistics of the United States census of 1900, the occupation mortality statistics of the State of Rhode Island, the reports of mine inspectors, the reports of

the Interstate Commerce Commission, the industrial mortality experience of the Prudential Insurance Company of America,^(a) and, finally, the reports of British inspectors of factories and workshops, and of the registrar-general of England and Wales on occupation mortality. In the following discussion of accident frequency in specified industries the general facts of accident occurrence, chiefly from a statistical point of view, are considered. The industries selected are all typical and the figures given emphasize the accident problem in particular trades, so far as the very imperfect available information permits.

ACCIDENTS IN FACTORIES AND WORKSHOPS.

ACCIDENTS IN THE METAL TRADES.

In general manufacturing and mechanical industries, probably the most exposed class are men employed in the metal trades, chiefly in the conversion of iron into steel and of steel into the numerous structural shapes, plates, rods, wire, etc. According to the New York State statistics for the five years ending with 1905, there occurred in this industry in that State 8,456 accidents, of which 135, or 1.6 per cent, were fatal. The fatality ratio varied considerably in the different branches of the industry, having been 4 per cent in smelting and refining, 4.1 per cent in rolling mills, 1.1 per cent in the manufacture of engines and boilers, and 1.5 per cent in other metal industries. In metal smelting and refining 88.9 per cent of the accidents caused temporary disablement, while 6.6 per cent caused permanent disablement. Burns in this branch of the industry caused 24.2 per cent of the accidents from all causes. In rolling mills 85.6 per cent of the accidents caused temporary disablement and 9.8 per cent caused permanent disablement. Cuts and similar injuries in this branch of the industry caused 24.1 per cent of the accidents from all causes. In the manufacture of engines and boilers and pumps 87.9 per cent of the accidents caused temporary disablement and 10.9 per cent caused permanent disablement. Bruises and similar injuries in this branch of the industry caused 25.3 per cent of the accidents from all causes. In miscellaneous metal industries 79 per cent of the accidents caused temporary disablement and 19.3 per cent caused permanent disablement. Cuts and similar injuries in these branches of the industry caused 22.8 per cent of the accidents from all causes. The details of accident frequency in the metal trades are set forth in tabular form, as follows, but additional data for certain branches of this industry are given in Tables I to IV of the appendix.

^a The industrial occupation mortality data of the Prudential Insurance Company of America have been made public at different times at international expositions, including Paris in 1900, St. Louis in 1904, and Jamestown Tercentennial in 1907, and they have been discussed in an address on industrial accidents read before the American Association of Medical Examiners, Chicago, 1908.

NUMBER AND PER CENT OF ACCIDENTS IN ALL METAL INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Lacerations.....	1,572	18.6
Burns.....	573	6.8
Cuts, etc.....	1,952	23.1
Brui ses.....	1,547	18.3
Sprains and dislocations.....	304	3.6
Fractures.....	560	6.6
Other injuries.....	489	5.8
Total, temporary disablement.....	6,997	82.8
Permanent disablement:		
Partial or complete loss of eyes.....	49	.6
Partial or complete loss of limbs.....	27	.3
Partial or complete loss of hands or feet.....	53	.6
Internal injuries.....	30	.3
Other injuries.....	1,147	13.6
Total, permanent disablement.....	1,306	15.4
Degree of injury not stated.....	18	.2
Fatal accidents.....	135	1.6
Total accidents of all degrees.....	8,456	100.0

ACCIDENTS IN IRON AND STEEL MANUFACTURE.

More suggestive and conclusive than the statistics for the State of New York are the annual returns of the Cambria Mutual Benefit Association, of Johnstown, Pa., for the period 1893 to 1906. This society includes within its membership employees in most of the important branches of the iron and steel industry and a small proportion of miners. The death rate from all causes has varied from 5.5 to 19 per 1,000, and the accident rate has varied from 1.4 to 11.7 per 1,000. During 1906 the death rate from all causes was 7.6 per 1,000 and from accidents alone 3.5. During the period 1900 to 1906, in the experience of this association there occurred 306 fatal accidents, of which 26.5 per cent were caused by falling articles, 20.3 per cent by persons being run over by railroad cars, locomotives, etc., 13.7 per cent while walking on railroad tracks outside of the works, 9.8 per cent by miscellaneous accidents inside of the works, 7.5 per cent by falls, 5.2 per cent by gas asphyxiation and explosions, 4.6 per cent by miscellaneous accidents outside of the works, 3.6 per cent by burns and scalds, 2.9 per cent by crane accidents, and 1.3 per cent by heat exhaustion. In addition, 3.3 per cent of the accidental deaths so classified were from homicides and 1.3 per cent from suicides. It is made evident by this analysis of the experience of a representative association of iron and steel workers (including some miners) that employees in the iron and steel industry have a true occupation accident risk as the direct result of their employment, which is probably somewhat less than one-half of the recorded accident rate, or about 1.5 per 1,000.

Some very interesting facts are also brought out by an analysis of the reports of the chief factory inspector of Pennsylvania for the period 1893 to 1902. During this period, among 180,396 persons employed in iron and steel industries and exposed to risk of death one year, there were reported 307 deaths from accident, or at the rate of 1.7 per 1,000 per annum. The rate was 5.4 per 1,000 among nut and bolt makers, 4.3 among persons employed in the manufacture of miscellaneous iron and steel products, 1.9 in the manufacture of nails and spikes, 1.47 in the manufacture of structural iron, 0.82 in the manufacture of locomotives and at railroad repair shops, and 0.84 in the manufacture of ships and engines.

Equally instructive and suggestive is the recorded industrial mortality experience of the Prudential Insurance Company of America during the ten years ending with 1906. There occurred during that period 4,521 deaths of persons employed in all branches of the iron and steel industry, of which 505, or 11.2 per cent, were deaths from accidents. The proportionate mortality was highest during the early ages, or, in detail, 23.2 per cent at ages 15 to 24, 14.6 per cent at ages 25 to 34, and 11.6 per cent at ages 35 to 44. After the age of 44 the percentages were somewhat irregular, having been 8.0 for ages 45 to 54, 8.1 for 55 to 64, 3.3 for 65 to 74, and 2.9 for 75 to 84. The statistical evidence is therefore conclusive that the industrial accident risk in the iron and steel industry at the present time is still a serious one.

The report of the factory inspector of Pennsylvania for 1906, referring briefly to accidents at iron and steel works, states that—

The reckless manipulation of cranes and hoists; the hasty and faulty hooking up of heavy weights; the slipping of furnaces; the overturning of ladles filled with molten metal; the speeding of engines and cars without light, bell, or flagman through the yards of large establishments thronged with busy workers; the ordering employees to work upon rotten scaffoldings; the employment of foreigners ignorant of our language and habits in dangerous occupations without words of caution and without proper oversight, are crimes against humanity that call for drastic legislation.

ACCIDENTS IN THE CHEMICAL INDUSTRY.

The chemical industry in the United States is gradually assuming very considerable proportions. It is one in which the accident risk is widely differentiated according to the different branches, which include the manufacture of sulphuric, nitric, and other acids, soda, potash, alum, coal tar products, cyanide, wood distillation, bleaching material, dyestuffs, tanning material, paints and varnishes, oils, and compressed and liquified gases. In the chemical industries of New York State during the period 1901 to 1905, there occurred 1,339 accidents, of which 83, or 2.5 per cent, were fatal. Of the total number 91.1 per cent caused temporary disablement

and 6.3 per cent permanent disablement. The details of accident frequency in this industry are set forth in tabulated form as follows:

NUMBER AND PER CENT OF ACCIDENTS IN CHEMICAL INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Lacerations.....	98	7.3
Burns.....	254	19.0
Cuts, etc.....	203	15.2
Bruises.....	385	28.7
Sprains and dislocations.....	93	6.9
Fractures.....	87	6.5
Other injuries.....	100	7.5
Total, temporary disablement.....	1,220	91.1
Permanent disablement:		
Partial or complete loss of eyes.....	3	.2
Partial or complete loss of limbs.....	4	.3
Partial or complete loss of hands or feet.....	1	.1
Internal injuries.....	8	.6
Other injuries.....	60	5.1
Total, permanent disablement.....	85	6.3
Degree of injury not stated.....	1	.1
Fatal accidents.....	33	2.5
Total accidents of all degrees.....	1,339	100.0

While these statistics are not conclusive, they are the only official data available at the present time. It may, however, be added that according to English mortality returns for the three years ending with 1892, out of 1,159 deaths from all causes among manufacturing chemists 89, or 7.7 per cent, were from accidents; and during the three years ending with 1902, out of 946 deaths from all causes 55, or 5.8 per cent, were from accidents. It is quite probable, however, that the fatal accident risk in the chemical industry is greater in the United States than in England and Wales. The statistics of the factory inspectors show that during the four years ending with 1903 there were reported to certifying surgeons in Great Britain 2,170 accidents in the chemical industry, of which 147, or 6.8 per cent, were fatal. The chemical works in Great Britain are subject to special rules and regulations framed in accordance with the factory acts of 1878 and 1895. The accident risk naturally varies considerably in the different branches, and is a particularly serious one in the manufacture of sulphuric and nitric acids, including the liability to explosion. The risk is still greater in the manufacture of gas for illuminating and industrial purposes. According to returns of British factory inspectors for 1900 to 1903, out of 839 accidents reported to certifying surgeons in connection with the manufacture of gas 115, or 13.7 per cent, proved fatal. More accurate information regarding the accident risk in the manufacture of chemicals and allied products,

including the manufacture of chemical substances produced by the aid of electricity, would be a useful addition to our present limited knowledge.

ACCIDENTS IN THE MANUFACTURE OF EXPLOSIVES.

One of the most dangerous industries is the manufacture of explosives, including matches. According to the New York State accident statistics for the period 1901 to 1905, out of 99 reported accidents in this industry 14, or 14.1 per cent, proved fatal. Of the total number 72.8 per cent caused temporary disablement and 13.1 per cent permanent disablement. The details of accident frequency and degree of injury in these industries are set forth in tabular form below:

NUMBER AND PER CENT OF ACCIDENTS IN THE MANUFACTURE OF EXPLOSIVES AND MATCHES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Lacerations.....	20	20.2
Burns.....	4	4.1
Cuts, etc.....	22	22.2
Bruises.....	15	15.1
Sprains and dislocations.....	4	4.1
Fractures.....	3	3.0
Other injuries.....	4	4.1
Total, temporary disablement.....	72	72.8
Permanent disablement:		
Internal injuries.....	1	1.0
Other injuries.....	12	12.1
Total, permanent disablement.....	13	13.1
Fatal accidents.....	14	14.1
Total accidents of all degrees.....	99	100.0

The manufacture of matches is, of course, much less dangerous than the manufacture of gunpowder, dynamite, and other explosives. The manufacture of matches has been quite fully investigated and reported upon to the secretary of state of the Home Department by British factory inspectors, with special reference to the use of phosphorus in the manufacture of lucifer matches. The term "accident," however, in this connection, is hardly applicable, since phosphorous necrosis may more properly be considered an industrial disease. The report was published in 1899 and includes useful observations on the manufacture of matches in the United States.^a)

The most useful data regarding the risk in the manufacture of explosives are contained in the annual reports of the inspectors of explosives of Great Britain, which extend over a long period of years. During the ten years ending with 1906 there occurred 3,018

^a See also Oliver, Diseases of Occupation, 1908, p. 35, et seq.

accidents in the manufacture of explosives, resulting in 3,751 personal injuries, of which 523 were fatal and 3,228 were nonfatal. Of the 523 persons killed 72 were fatally injured in the manufacture of explosives, 31 in the keeping of explosives, 5 in the conveyance of explosives, and 415 in the use of explosives. In the manufacture of gunpowder considered alone there occurred 98 accidents during the ten years ending with 1906, injuring 55 persons, of whom 24, or 43.6 per cent were killed. During the period 1891 to 1900 the rate of fatal accident frequency among persons employed in the manufacture of explosives in Great Britain for which the returns were obtainable was 0.44 per 1,000. The rate of fatal accident frequency in the United States in this industry is probably very much higher, but the present information is not conclusive. The rules and regulations governing the manufacture, storage, and use of explosives in Great Britain are the result of many years of careful and strictly scientific investigation, but regardless of every effort the risk of accidental death and injury in this industry remains a very serious one. Similar rules and regulations in this country would unquestionably serve a decidedly useful and humane purpose.^(a)

ACCIDENTS IN THE LUMBER INDUSTRY.

The lumber industry in all its branches gives employment to a very large number of persons exposed to a very considerable risk of both fatal and nonfatal accidents. The principal risk to fatal accidents is in connection with logging and lumbering. For most of the lumbering States no statistical information is available to determine the incidence of accident frequency in the different employments. The most useful data are for the lumber industry of the State of Washington. According to the bureau of labor statistics of that State for the year ending August 1, 1906, among 9,447 men employed there were 1,022 slight accidents, 64 serious accidents, and 15 fatal accidents. ^(b) In proportion to the number employed the slight accident risk was 108.18 per 1,000, the serious accident risk 6.77 per 1,000, and the fatal accident risk 1.59 per 1,000. The returns for 1906 indicated a slightly less accident liability than during 1905. According to the Second Biennial Report of the Bureau of Labor Statistics of Oregon, there were, from January 1, 1905, to September 30, 1906, in that State 151 accidents reported in sawmills, of which 38, or 25.2 per cent, were fatal; 53, or 35.1 per cent, serious; 35, or 23.2 per cent, severe, and 25, or 16.5 per cent, slight. In logging operations 28 accidents were re-

^a See Guide to the Explosives Act, 1875, and to Orders in Council, etc., etc., by Capt. J. H. Thomson, His Majesty's Chief Inspector of Explosives, London, 1905.

^b A very few of these accidents occurred in other industries less hazardous than lumbering.

ported for the same period, of which 15, or 53.6 per cent, were fatal; 11, or 39.3 per cent, serious, and 2, or 7.1 per cent severe. In the lumber, sawmill, and planing mill industries of the State of New York, during the five years ending with 1905, there occurred 795 accidents, of which 30, or 3.8 per cent, were fatal. Of the total number of accidents 57.3 per cent caused temporary disablement and 38.6 per cent permanent disablement. The details of accident frequency and degree of injury are set forth in the table below:

NUMBER AND PER CENT OF ACCIDENTS IN THE LUMBER INDUSTRY IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Lacerations.....	133	16.7
Burns.....	18	2.3
Cuts, etc.....	167	21.0
Bruises.....	71	8.9
Sprains and dislocations.....	7	.9
Fractures.....	40	5.0
Other injuries.....	20	2.5
Total, temporary disablement.....	456	57.3
Permanent disablement:		
Partial or complete loss of eyes.....	2	.3
Partial or complete loss of limbs.....	13	1.6
Partial or complete loss of hands or feet.....	21	2.6
Internal injuries.....	2	.3
Other injuries.....	269	33.8
Total, permanent disablement.....	307	38.6
Degree of injury not stated.....	2	.3
Fatal accidents.....	30	3.8
Total accidents of all degrees.....	795	100.0

ACCIDENTS IN SAWMILLS.

While the risk of fatal accidents in sawmills and planing mills is comparatively low, the risk of serious and minor injuries is a very considerable one. The comparatively low ratio of fatal accident liability is more clearly set forth by the official mortality statistics of England and Wales for the three years ending with 1902, which show that out of 1,143 deaths from all causes among sawyers, only 64, or 5.6 per cent, were from accidents. There are no corresponding statistics for the lumber industry as a whole for the United States. The subject of saw accidents has been considered in some detail by Mr. John Calder in a work on "The prevention of factory accidents," in which he states that circular saws annually claim a large number of fingers and portions of hands, as well as some lives, emphasizing the necessity of safeguarding machinery. During 1898, he states, there were recorded in Great Britain under the factory inspection laws 1,144 accidents in connection with circular saws, of which only 5 were fatal. The necessary protective devices are very well illus-

trated in the treatises referred to, and with reference to American conditions the subject has received some recent consideration in the exhibits of the Museum of Safety Devices of the American Institute of Social Service.

ACCIDENTS IN THE TEXTILE INDUSTRIES.

In the textile industries, as a group, the varieties of employment are so very considerable that the degree of accident liability naturally varies widely with the different branches. Most of the work is, of necessity, carried on indoors, under fairly identical conditions and with about the same class of machinery used for spinning and weaving. That the risk to minor injury is a very serious one is emphasized in a very elaborate report on the prevention of accidents from machinery in the manufacture of cotton, published as a British parliamentary document in 1899. As pointed out by Mr. Arthur Whitlegge, His Majesty's chief inspector of factories, "although the proportion of recorded accidents to the number of persons engaged in this trade is not high in comparison with other industries, the total is sufficiently formidable, and the result of the inquiry is to show that it is capable of much reduction." The report furnishes valuable information to manufacturers and machine makers, suggesting methods and means for the reduction of accidents by the proper guarding of all future installations of cotton-making machinery. According to the report referred to, there occurred during 1898 in British cotton factories 3,214 accidents, of which 35 were fatal. Of the total number of accidents, 2,316 were caused by machinery moved by power. According to the factory inspector's statistics of the State of New York for the five years ending with 1905, out of 3,140 accidents in textile industries, 36, or 1.1 per cent, were fatal. Of the total number of accidents 82.5 per cent caused temporary disablement and 16.2 per cent permanent disablement. The details of accident frequency and degree of injury in this industry are set forth in tabular form below:

NUMBER AND PER CENT OF ACCIDENTS IN TEXTILE INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Lacerations	667	21.2
Burns.....	111	3.5
Cuts, etc.....	819	26.1
Bruises.....	508	16.2
Sprains and dislocations.....	124	3.9
Fractures.....	183	5.8
Other injuries.....	182	5.8
Total, temporary disablement.....	2,594	82.5

NUMBER AND PER CENT OF ACCIDENTS IN TEXTILE INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, ETC.—Concluded.

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Permanent disablement:		
Partial or complete loss of eyes.....	5	.2
Partial or complete loss of limbs.....	21	.7
Partial or complete loss of hands or feet.....	29	.9
Internal injuries.....	11	.4
Other injuries.....	439	14.0
Total, permanent disablement.....	505	16.2
Degree of injury not stated.....	5	.2
Fatal accidents.....	36	1.1
Total accidents of all degrees.....	3,140	100.0

TEXTILE ACCIDENTS IN RHODE ISLAND.

There are no similar accident returns in detail for the principal textile centers of the United States. The only useful data are the mortality returns for the State of Rhode Island, but on account of the relatively low proportion of fatal accidents in this industry the mortality data are of less value than they would be otherwise. During the ten years ending with 1906 there occurred in Rhode Island 1,186 deaths of operatives in textile mills, of which 90, or 7.6 per cent, were accidental. The term "operatives" is a very general one and includes weavers and spinners, carders, etc. Among 26 deaths of carders, separately reported, there was 1 accident, or 3.8 per cent of the total mortality from all causes. Among dyers there occurred 79 deaths from all causes, of which 8, or 10.1 per cent, were accidental. According to this return, the fatal accident liability in the textile industry was somewhat greater than generally assumed.^(a)

TEXTILE ACCIDENTS IN GREAT BRITAIN.

The corresponding reports of British factory inspectors contain much more interesting and useful information. During the five years ending with 1904, out of all accidents reported for textile industries 1.6 per cent were fatal, against 3.9 per cent for nontextile industries, including laundries, docks and wharves, warehouses, and building construction. Grouped according to the degree of injury, the reports for the four years ending with 1903 furnish the details of 18,828 accidents reported as having occurred in textile manufactories and of 98,728 accidents reported as having occurred in nontextile industries.

^a An interesting statistical analysis of 1,000 accidents in a representative cotton mill is contained in the special report on dangerous occupations of the Massachusetts State Board of Health, Boston, 1907, pp. 29 et seq.

NUMBER AND PER CENT OF ACCIDENTS IN TEXTILE AND IN NONTEXTILE INDUSTRIES IN THE UNITED KINGDOM, BY DEGREE OF INJURY, FOR THE PERIOD 1900 TO 1903.

[Compiled from the Annual Reports of the Chief Inspector of Factories and Workshops of the United Kingdom, 1900 to 1903.]

Degree of accidental injury.	Textile industries.		Nontextile industries.	
	Number of accidents.	Per cent of total.	Number of accidents.	Per cent of total.
Fatal accidents.....	288	1.5	3,949	4.0
Nonfatal accidents:				
Loss of right hand or arm.....	80	.4	266	.3
Loss of left hand or arm.....	57	.3	218	.2
Loss of part of right hand.....	1,204	6.4	4,874	4.9
Loss of part of left hand.....	909	4.8	4,824	4.9
Loss of any part of leg or foot.....	28	.2	433	.4
Fracture of limbs or bones of trunk.....	672	3.6	2,644	2.7
Fracture of hand or foot.....	550	2.9	1,985	2.0
Loss of sight of one or both eyes.....	43	.2	201	.2
Injuries to head and face.....	1,543	8.2	7,936	8.0
Burns and scalds.....	461	2.5	13,459	13.7
Lacerations, contusions, etc.....	12,993	69.0	57,939	58.7
Total nonfatal accidents.....	18,540	98.5	94,779	96.0
Total fatal and nonfatal accidents.....	18,828	100.0	98,728	100.0

The table is a very suggestive one, but for a further understanding of the conditions injurious to life and health in this industry a much more extended analysis of the data is required. It is particularly evident in the case of this industry that material differences in the methods of reporting nonfatal accidents must seriously impair the value of conclusions, and extreme caution, therefore, is necessary in the use of any statistical data, official or otherwise, upon this subject.

ACCIDENTS IN ELECTRICAL INDUSTRIES.

The electrical industries of the United States have made such extraordinary progress during recent years that central electric light and power stations alone in 1902 gave employment to 6,996 salaried officials and clerks and 23,330 wage-earners, all more or less exposed to the risk of accidental death and injury as the result of direct or alternating electrical currents. The accident risk varies naturally very considerably according to occupations, the most important of which are those of foremen, inspectors, engineers, firemen, dynamo and switchboard men, linemen, mechanics, and lamp trimmers. A large amount of useful information regarding central light and power stations has been published in the form of a special report by the Bureau of the Census in 1905. The accident statistics for the State of New York for the five years ending with 1905 return 1,923 recorded casualties, of which only 16, or 0.8 per cent, were fatal. Of the total number of accidents 82.3 per cent caused temporary disablement and 16.8 per cent permanent disablement. Details of the accident frequency and degree of injury in this industry are set forth in the following table.

NUMBER AND PER CENT OF ACCIDENTS IN ELECTRICAL INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Percent.
Temporary disablement:		
Lacerations.....	347	18.0
Burns.....	210	10.9
Cuts, etc.....	400	21.3
Bruises.....	328	17.1
Sprains and dislocations.....	60	3.1
Fractures.....	86	4.5
Other injuries.....	143	7.4
Total, temporary disablement.....	1,583	82.3
Permanent disablement:		
Partial or complete loss of eyes.....	7	.4
Partial or complete loss of limbs.....	4	.2
Partial or complete loss of hands or feet.....	10	.5
Internal injuries.....	7	.4
Other injuries.....	294	15.3
Total, permanent disablement.....	322	16.8
Degree of injury not stated.....	2	.1
Fatal accidents.....	16	.8
Total accidents of all degrees.....	1,923	100.0

ACCIDENT LIABILITY OF ELECTRICIANS AND LINEMEN.

These statistics, however, have only a very limited bearing upon the electrical industry as a whole, pertaining, as they probably do, chiefly to the manufacture of electrical machinery, apparatus, and supplies, rather than to exposure in electric light and power stations. In the manufacture of electrical machinery, etc., more than 60,000 wage-earners are employed, and in addition more than 10,000 salaried officials, clerks, etc., who, however, are much less seriously exposed to the danger of electrical accident than men in responsible positions in central light and power plants. The statistics also have no reference to the accident liability of men employed on electric railways. The Prudential Insurance Company of America, at the Jamestown Exposition, exhibited the results of its industrial mortality experience for the period of 1897 to 1906 for certain well-defined groups of persons employed in the electrical industry. According to this experience, out of 645 deaths of electricians, 95, or 14.7 per cent, were from accidents, but the proportionate mortality was highest at ages 25 to 34, when 19.1 per cent of the deaths from all causes were from accidents, decreasing to 15.4 per cent at ages 25 to 34, to 11 per cent at ages 35 to 44, and to 7.8 per cent at ages 45 to 54. Among electric linemen there occurred 240 deaths during the period mentioned, of which 112, or 46.7 per cent, were from accidents. At ages 15 to 24 the proportionate mortality from accidents was 55.3 per cent of the mortality from all causes, increasing to 56.8 per cent at ages 25 to 34, and decreasing to 38.2 per cent at ages 35 to 44, and to 30 per cent at ages 45 to 54. Somewhat similar are the results of the analysis of the

mortality data for Rhode Island for the ten years ending with 1906, during which period there were recorded in that State 35 deaths of electricians, of which 6, or 17.1 per cent, were from accidents, while there occurred 13 deaths among linemen, of which 9, or 69.2 per cent, were from accidents.

The details of the published insurance mortality experience with this class of labor are set forth in the following two tables, which show the number of deaths from all causes at each period of life and the number of deaths from accidents and the resulting percentage of accident frequency at each decennial group of ages or the proportionate accident mortality as determined by this method.

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG ELECTRICIANS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	199	38	19.1
25 to 34 years.....	240	37	15.4
35 to 44 years.....	127	14	11.0
45 to 54 years.....	64	5	7.8
55 to 64 years.....	12	1	8.3
65 years or over.....	3		
Total.....	645	95	14.7

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG ELECTRIC LINEMEN, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	47	26	55.3
25 to 34 years.....	95	54	56.8
35 to 44 years.....	68	26	38.2
45 to 54 years.....	20	6	30.0
55 to 64 years.....	8		
65 years or over.....	2		
Total.....	240	112	46.7

ELECTRICAL ACCIDENTS IN GREAT BRITAIN.

In Great Britain during the four years ending with 1903 there were recorded 174 electrical accidents, of which 37, or 21.3 per cent, were fatal. The subject of electrical accident risk has been discussed at considerable length in Oliver's *Dangerous Trades*, in a separate chapter on electrical generating works, in which reference is made to a parliamentary report of 1897 of a departmental committee on elec-

trical generating works, which contains a large amount of extremely useful and suggestive information. Much useful information is also contained in the annual reports of the Massachusetts Gas and Electric Light Commission. The subject is also discussed at some length in Calder's treatise on "The Prevention of Factory Accidents," from which are briefly quoted the following remarks:

The special risk from electric shock in connection with the generation and distribution of electricity in factories, workshops, and other premises is one which has increased with the progress in the use of high pressure. A dangerous and possibly fatal shock may be sustained by contact between two portions of the human body or even clothing and two conductors differing in pressure by 700 to 1,200 volts, according to the perfection of the contact. An insulated person safely touching highly charged metal and at the same time passing any conductor to another uninsulated person, or even touching the latter or an earthed conductor, may cause a fatal or severe shock. The metal of the dynamos, the switchboard and connections, the high pressure mains, transformers, and series arc lamps is material from the touching of which under the above conditions dangerous shock would result. The ordinary fencing may be relied upon for protecting moving parts of electrical generating machinery in the case of direct currents below a voltage of 700 and of alternate currents less than 350 volts pressure. All installations with higher voltages should be regarded as high pressure, and the following extra precautions should be adopted in view of the risk from shock.^(a)

There are few employments which require more serious attention to the risk of accidental injuries than the electrical industries, and as emphasized by the statistics previously quoted, the risk is particularly great in the employment of linemen, where, however, the electrical hazard is increased by the liability to serious falls in the climbing of poles and connecting of wires while at a considerable height above the ground.

ACCIDENTS IN MINES AND QUARRIES.

The accident risk in mines and quarries is a widely distributed one throughout the United States, and every branch of the industry would require special consideration to properly emphasize the specific occupation hazard. There were in 1902, according to the census, 151,516 mines in the United States, giving employment to 581,728 wage-earners and 38,128 salaried officials, clerks, etc.

ACCIDENTS IN COAL MINING.

The most important branch of the industry is coal mining, which during 1902 employed 350,329 wage-earners. The broad division in coal mining is between anthracite and bituminous. The anthracite beds are practically limited to Pennsylvania, while bituminous coal is mined in a large number of States, including the Pacific coast States

^a *The Prevention of Factory Accidents*, by John Calder, p. 114.

and the Territory of Alaska. During the ten years ending with 1906 there occurred in the anthracite regions of Pennsylvania 4,833 fatal accidents and 11,084 nonfatal injuries. The fatal accident liability in anthracite mining in proportion to the number employed was 3.18 per 1,000 and 7.29 per 1,000 for nonfatal injuries. In the bituminous coal fields of Pennsylvania there occurred during the ten years ending with 1906 3,522 fatal accidents and 7,671 nonfatal injuries. In proportion to the number employed the fatal accident rate was 2.77 and the nonfatal accident rate 6.03 per 1,000. The accident liability, both fatal and nonfatal, was, therefore, somewhat greater in the anthracite coal fields than in the bituminous, but the differences are not as great as generally assumed. A more marked difference appears when the accident liability in the soft-coal regions of Pennsylvania is compared with that in the soft-coal regions of certain other States. In Illinois, in the ten years ending with 1906, the fatal accident rate was 2.57 and the nonfatal accident rate 10.67 per 1,000, while in the State of Missouri during the same period the fatal accident rate was only 1.39 and the nonfatal accident rate 2.65 per 1,000. The accident risk in soft-coal mining is very much greater in the far western States, and, for illustration, in the State of Colorado during the ten years ending with 1906 the fatal accident rate in coal mining was 5.87 per 1,000 and the nonfatal rate was 10.74.^(a) The details of coal mining accidents in the anthracite fields of Pennsylvania are shown here, but additional tables for other States are given in the statistical appendix.

NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN THE ANTHRACITE COAL MINES OF PENNSYLVANIA, BY YEARS, 1897 TO 1906.

[Compiled from the Annual Reports of the Pennsylvania Department of Mines.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	149,557	423	2.83	1,106	7.40
1898.....	142,420	411	2.89	1,134	7.96
1899.....	140,583	461	3.28	1,030	7.33
1900.....	143,826	411	2.86	1,057	7.35
1901.....	147,651	513	3.47	1,243	8.42
1902.....	148,141	300	2.03	641	4.33
1903.....	151,827	518	3.41	1,325	8.73
1904.....	161,330	595	3.69	1,047	6.49
1905.....	168,254	644	3.83	1,289	7.66
1906.....	166,175	557	3.35	1,212	7.29
Total, 5 years, 1897 to 1901.....	724,037	2,219	3.06	5,570	7.69
Total, 5 years, 1902 to 1906.....	795,727	2,614	3.29	5,514	6.93
Total, 10 years, 1897 to 1906.....	1,519,764	4,833	3.18	11,084	7.29

^a For a further discussion of coal mining accidents by the writer, see articles in the *Mineral Industry*, volume 6, New York, 1897, and in the *Engineering and Mining Journal* for January 27, 1900; November 24, 1900; August 10, 1901; October 25, 1902; September 5 and 26, 1903; December 22, 1904; December 2, 1905; December 22, 1906, and January 4, 1908. For a discussion of the conditions of labor and life in anthracite mining by the writer, see the *Engineering and Mining Journal* for November 22 and 29 and December 13 and 20, 1902.

NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN THE BITUMINOUS COAL MINES OF PENNSYLVANIA, BY YEARS, 1897 TO 1906.

[Compiled from the Annual Reports of the Pennsylvania Department of Mines. The figures for each year are as shown in the report for that particular year.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1 000 employees.	Number.	Rate per 1,000 employees.
1897.....	86,554	150	1.73	426	4.92
1898.....	87,802	198	2.28	458	5.22
1899.....	91,440	258	2.82	487	5.33
1900.....	109,018	285	2.44	584	5.36
1901.....	117,602	301	2.56	656	5.58
1902.....	135,386	456	3.36	861	6.36
1903.....	151,745	402	2.65	1,046	6.99
1904.....	155,747	536	3.44	917	5.99
1905.....	164,941	479	2.90	1,076	6.52
1906.....	172,928	477	2.76	1,160	6.71
Total, 5 years, 1897 to 1901.....	492,416	1,172	2.39	2,611	5.30
Total, 5 years, 1902 to 1906.....	780,747	2,350	3.01	5,060	6.46
Total, 10 years, 1897 to 1906.....	1,273,163	3,522	2.77	7,671	6.08

ACCIDENTS IN IRON MINING.

In metal mining the most important branch is iron-ore mining in the Lake Superior region. The mining of iron ore in the aggregate gives employment to about 40,000 wage-earners. The most trustworthy data are for Dickinson and Marquette counties, Mich. During the ten years ending with 1906 the fatal accident rate in the iron mines of Dickinson County was 4.23 per 1,000, while the nonfatal accident rate was 3.80. But the term "accident" in this case is limited to serious injuries. The accident rate has varied considerably from year to year, having been as high as 7.79 per 1,000 in 1901 and as low as 2.54 per 1,000 in 1902. The fatality rate of persons employed inside of the mines during the ten-year period was 4.95 per 1,000, while the fatality rate outside of the mines was 2.53 per 1,000. In Marquette County during the same period the fatal accident rate was 4.31 per 1,000, having been as high as 5.58 in 1901, and as low as 3.62 in 1900.

The details of the accident frequency during each of the years of the ten-year period are given in the following table. An additional table showing the frequency of inside and outside accidents in the mines of Dickinson County is given in the appendix, Table VIII.

INDUSTRIAL ACCIDENTS.

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NUMBER OF FATAL AND OF SERIOUS NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN IRON-ORE MINES OF DICKINSON COUNTY, MICH., BY YEARS, 1897 TO 1906.

Year.	Number of employees.	Fatal accidents.		Serious nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	2,161	10	4.63	7	3.24
1898.....	2,470	11	4.45	17	6.88
1899.....	2,873	9	3.13	16	5.57
1900.....	3,213	19	5.91	12	3.73
1901.....	3,467	27	7.79	7	2.02
1902.....	3,943	10	2.54	17	4.31
1903.....	4,004	16	4.00	14	3.50
1904.....	3,048	9	2.95	11	3.61
1905.....	3,212	9	2.80	8	2.49
1906.....	3,489	15	4.30	12	3.44
Total, 5 years, 1897 to 1901.....	14,184	76	5.36	59	4.16
Total, 5 years, 1902 to 1906.....	17,696	59	3.33	62	3.50
Total, 10 years, 1897 to 1906.....	31,880	135	4.23	121	3.80

NUMBER OF FATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN IRON-ORE MINES OF MARQUETTE COUNTY, MICH., BY YEARS, 1897 TO 1906.

Year.	Number of employees.	Fatal accidents.	
		Number.	Rate per 1,000 employees.
1897.....	4,153	17	4.09
1898.....	4,389	19	4.33
1899.....	5,655	26	4.60
1900.....	6,627	24	3.62
1901.....	5,200	29	5.58
1902.....	5,518	29	5.26
1903.....	6,000	23	3.83
1904.....	4,024	15	3.73
1905.....	5,060	22	4.35
1906.....	5,840	22	3.77
Total, 5 years, 1897 to 1901.....	26,024	115	4.42
Total, 5 years, 1902 to 1906.....	26,442	111	4.20
Total, 10 years, 1897 to 1906.....	52,466	226	4.31

ACCIDENTS IN LEAD AND ZINC MINING.

The mining of lead and zinc is chiefly concentrated in Missouri. The returns for the metalliferous mines of that State may, therefore, be accepted as representative of this industry. During the ten-year period ended with 1906 the fatal accident rate in Missouri lead and zinc mines was 3.01 per 1,000 and the nonfatal accident rate 1.69. The fatal accident rate has varied considerably from year to year, having been as high as 4.49 per 1,000 in 1900, and as low as 1.23 per 1,000 in 1902. The mining of lead and zinc ores as a separate industry gives employment to about 8,000 (°) wage-earners throughout the United States. The details of accident frequency in the lead and zinc mines of Missouri, including the mills, are set forth in the following table.

*7,881, according to Census Report on Mines and Quarries, 1902, p. 445.

NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN LEAD AND ZINC MINES OF MISSOURI (INCLUDING THE MILLS), BY YEARS, 1897 TO 1906.

[Compiled from the Annual Reports of the Missouri Bureau of Mines and Mine Inspection.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	6,364	16	2.51	5	0.79
1898.....	7,609	29	3.81	16	2.10
1899.....	10,997	27	2.46	19	1.73
1900.....	11,583	52	4.49	27	2.33
1901.....	10,989	41	3.73	24	2.18
1902.....	11,358	14	1.23	23	2.03
1903.....	12,405	17	1.37	21	1.69
1904.....	13,608	30	2.20	8	.59
1905.....	12,456	49	3.93	13	1.04
1906.....	13,243	58	4.38	31	2.34
Total, 5 years, 1897 to 1901.....	47,542	165	3.47	91	1.91
Total, 5 years, 1902 to 1906.....	63,070	168	2.66	96	1.53
Total, 10 years, 1897 to 1906.....	110,612	333	3.01	187	1.69

ACCIDENTS IN COPPER MINING.

Copper mining gives employment to about 26,000 wage-earners, chiefly in the State of Montana, the Lake Superior region, and in Arizona. The most trustworthy data regarding the accident liability in copper mines are for Houghton County, Mich., for the ten years ending with 1903. The data are limited to fatal accidents, apparently no returns being required for nonfatal injuries. The recorded fatal accident rate was 2.80 per 1,000 for the ten-year period, having been as high as 6.35 per 1,000 in 1895, and as low as 2.07 per 1,000 in 1899. The details of fatal accident frequency in the copper mines of Houghton County, Mich., are set forth in the table below:

NUMBER OF FATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN COPPER MINES OF HOUGHTON COUNTY, MICH., BY YEARS, 1894 TO 1903.

[Figures for 1894 to 1902 from Twenty-first Annual Report of the Michigan Bureau of Labor, p. 119; figures for 1903 from the Engineering and Mining Journal.]

Year.	Number of employees.	Fatal accidents.	
		Number.	Rate per 1,000 employees.
1894.....	7,348	22	2.99
1895.....	7,249	46	6.35
1896.....	8,170	19	2.33
1897.....	8,726	26	2.98
1898.....	10,469	23	2.20
1899.....	13,051	27	2.07
1900.....	13,971	36	2.58
1901.....	13,498	33	2.44
1902.....	14,130	44	3.11
1903.....	13,629	33	2.42
Total, 5 years, 1894 to 1898.....	41,962	136	3.24
Total, 5 years, 1899 to 1903.....	68,279	173	2.53
Total, 10 years, 1894 to 1903.....	110,241	309	2.80

Since copper mining in Montana constitutes the predominating branch of the mining industry in that State, the accident returns for

metal mines generally are fairly representative of the copper mining industry, and they may be briefly referred to in connection with the present discussion. During the ten years ending with 1906 the fatal accident rate in Montana metal mines was 3.48 per 1,000, having been as high as 5.29 in 1897 and as low as 2.75 in 1903. The nonfatal accident liability was 2.91 per 1,000 during the ten-year period, having been as high as 3.80 in 1904 and as low as 1.79 in 1899. It is apparent, however, from the returns that the more serious accidents only are required to be reported. The details of accident frequency in metal mining in Montana are given in the appendix.

ACCIDENTS IN GOLD AND SILVER MINING.

For gold and silver mines no statistical data are available, except the returns for the metalliferous mines and smelters of Colorado. The gold and silver mines constitute nearly the whole of metal mining in Colorado, and the returns may, therefore, be accepted as representative of the gold and silver mining industry in that State. The fatality rate in Colorado metal mines during the ten years ending with 1906 was 2.85 per 1,000, the rate having been as high as 3.77 per 1,000 in 1897 and as low as 2.08 in 1903. The nonfatal accident rate was 12.96 per 1,000 during the ten-year period, having been as high as 16.99 in 1901 and as low as 5.78 in 1897. Evidently nonfatal accidents in Colorado include minor injuries, which apparently are not reported in Montana. During 1906 the fatal accident rate in the gold mines of New South Wales was 0.45 per 1,000, of Queensland 1.52, of Western Australia 2.35, and in the Transvaal 5.40. In 1905 the rate for the Transvaal was 5.36 per 1,000. The details of accident frequency in the metal mining industry of Colorado are given in the table below:

NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN GOLD, SILVER, AND LEAD MINES OF COLORADO, BY YEARS, 1897 TO 1906.

[From the Biennial Reports of the State Bureau of Mines of Colorado.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	29,215	110	3.77	169	5.78
1898.....	30,231	108	3.57	184	6.09
1899.....	39,210	103	2.63	481	12.27
1900.....	40,111	107	2.67	526	13.11
1901.....	37,260	121	3.25	633	16.99
1902.....	35,118	82	2.33	561	15.97
1903.....	32,267	67	2.08	494	15.31
1904.....	35,376	101	2.86	539	15.24
1905.....	34,278	109	3.18	486	14.18
1906.....	34,790	82	2.36	436	12.53
Total, 5 years, 1897 to 1901.....	176,027	549	3.12	1,993	11.32
Total, 5 years, 1902 to 1906.....	171,829	441	2.57	2,516	14.64
Total, 10 years, 1897 to 1906.....	347,856	990	2.85	4,509	12.96

ELECTRICAL RISK IN MINING.

It is evident that the risk to life and the liability to injury in all branches of mining in the United States is very serious, and apparently the tendency is toward an increase in the risk. One of the most important factors of recent years contributing toward an increase in the accident liability is the increasing use of electricity in mines, chiefly for the operation of coal-cutting machinery. There is a brief discussion of this subject in a special report of the Bureau of the Census,^(a) on mines and quarries, while a more extended consideration is presented in the Report of the Departmental Committee on the Use of Electricity in Mines, published as a British parliamentary document in 1904. The subject is also referred to officially and at length, with extensive statistical illustrations, in the various reports of the mine inspectors of the different States. It requires no very extended investigation to make it clear that the mining industry at the present time is subject to a much higher accident liability than appears necessary in the light of recent and thoroughly scientific investigations into the causes of such accidents and the conditions responsible for their occurrence. On the other hand, a part of the increase in the risk is the result of the increasing depth of mines and the increasing employment of a low grade of foreign, non-English-speaking labor.^(b)

ACCIDENTS IN SMELTING AND REFINING.

The frequency of industrial accidents in the recovery of precious metals by the cyanide and other processes, as well as the risk of employment in smelting and refining generally, is a separate subject for the discussion of which there are not as yet any very trustworthy statistical data for the United States, although some useful information is available for certain foreign countries. The most serious risk is the liability to lead and other forms of industrial metallic poisoning, but these are generally classified as industrial or occupation diseases rather than as industrial accidents. Regarding the risk of industrial poisoning the works of Arlidge and Oliver should be consulted, but it would appear to be fairly well established that lead and other forms of industrial poisoning are not as common in the United States as in England and on the Continent.

ACCIDENTS IN THE MINERAL OIL INDUSTRY.

Another branch of the mining industry is the prospecting and drilling for petroleum and the operation of oil wells and pipe lines, including refineries, for which as yet there are no very satisfactory

^a Special Report on Mines and Quarries, Bureau of the Census, 1905, p. 145.

^b For a further discussion of accidents in metal mining by the writer, see the *Issues of the Engineering and Mining Journal* for January 14 and 21, 1904.

statistics. From such information, however, as is available the accident risk would appear to be much greater in the Louisiana-Texas oil fields and in those of southern California than in the oil fields of Pennsylvania, West Virginia, Ohio, or Indiana. The accident risk in connection with oil well drilling and operating is briefly indicated in the following quotation from a report on the oil fields of the Louisiana-Texas Gulf Coastal Plain, published by the United States Geological Survey in 1903:

Considerable danger accompanies the flowing and closing of a new well on account of the poisonous nature of the gas accompanying the oil flow. This gas contains a large proportion of hydrogen sulphide, and its poisonous qualities are intensified by its being saturated with petroleum vapor. Petroleum vapor has the effect of rendering persons inhaling it unconscious, and if one remains under its influence for any length of time death ensues. The combination of the hydrogen sulphide and petroleum vapor issuing from the wells is such as to render death almost instantaneous.^(a)

The petroleum industry is constantly increasing in importance, and in 1902 there were 118,671 wells, giving employment to 17,552 wage-earners.^(b) The principal risk appears to be in connection with derrick construction, where there is a serious liability to falls, but the statistical data regarding this occupation are fragmentary and inconclusive.

ACCIDENTS IN QUARRIES.

Quarrying is a very dangerous industry, which, according to the Census of 1902, gives employment to 71,156 wage-earners.^(c) The accident liability varies somewhat, but in general quarrying the risk is about the same, whether it be the quarrying of limestone, granite, marble, sandstone, etc. The accident liability varies also, according to the character of the strata and the depth of the quarries as well as the methods used in quarrying, which, of course, includes the extensive handling and use of explosives. The only conclusive available data regarding the fatal accident liability of quarrymen in the United States are derived from the mortality experience of the industrial insurance company previously referred to, and which includes the ten years ending with 1906. In this experience there occurred 198 deaths, of which 52, or 26.3 per cent, were due to accident. The proportionate mortality varied considerably according to age, having been 77.8 per cent at ages 15 to 24, 45.5 per cent at ages

^a Bulletin 212, U. S. Geological Survey, 1903, p. 170.

^b Special Report of the Bureau of the Census on Mines and Quarries, 1902, p. 721.

^c Special Report of the Bureau of the Census on Mines and Quarries, 1902, p. 785.

25 to 34, 32.4 per cent at ages 35 to 44, 28.6 per cent at ages 45 to 54, 18.6 per cent at ages 55 to 64, and 12.5 per cent at ages 65 to 75. The details of this mortality experience are set forth in the following table, which shows by periods of life the proportionate mortality from accidents in the mortality from all causes:

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG QUARRYMEN, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	9	7	77.8
25 to 34 years.....	11	5	45.5
35 to 44 years.....	34	11	32.4
45 to 54 years.....	49	14	28.6
55 to 64 years.....	59	11	18.6
65 years or over.....	36	4	11.1
Total.....	198	52	26.3

The subject of accidents to quarrymen is discussed in some detail in *Dangerous Trades*, by Oliver, who very fully considers the varieties of quarries, the methods of working, the character of accidents and their causes, including the liability to injuries to the eyes, which are often of serious consequence.^(a) In England the working of quarries is under strict supervision and controlled by legal enactments, which are fully set forth in the different quarries acts of 1887, 1894, and other years. The general fatal accident rate in the quarries of the United Kingdom in 1906 was 1.06 per 1,000.^(b) In France, during 1906, the fatality rate in quarries was 0.92, in Germany 1.47, and in Italy 1.05 per 1,000. The accident liability in this occupation is further emphasized by English mortality statistics, according to which, out of 2,839 deaths during the three years ending with 1902, 259, or 9.12 per cent, were from accidents.

ACCIDENTS IN TRANSPORTATION BY RAIL.

The accident liability in the railway service constitutes in the aggregate a most serious risk to the life, health, and well-being of both employees and passengers. Out of 658,105 deaths from all causes reported in the registration area of the United States during 1906, rail-

^a *Dangerous Trades*, pp. 560, 561.

^b For additional statistics of accidents in quarries in the United Kingdom, see Tables X and XI of the appendix.

road accidents and injuries caused 7,090 deaths, while in addition there were 1,488 deaths caused by street car accidents. The corresponding number of accidental deaths, more or less the result of industrial activity, were 1,523 deaths resulting from injuries in mines and quarries, 565 deaths resulting from injuries by machinery, 1,524 deaths resulting from injuries by vehicles and horses, and 183 deaths resulting from automobile accidents.^(a) According to the returns for 1906 of the Interstate Commerce Commission, 3,929 railroad employees were killed as the result of railroad accidents and 76,701 were injured.^(b)

ACCIDENT LIABILITY OF RAILWAY TRAINMEN.

The most important group of railway employees is trainmen, which during 1906, numbered nearly 300,000. Among this number there occurred 2,310 deaths caused by railroad casualties, or 8.09 per 1,000, while, in addition, there occurred 34,989 injuries, or at the rate of 122.53 per 1,000. The fatality rate during the last five years was 7.91, against 6.81 per 1,000 during the preceding quinquennial period. The rate of injuries other than fatal was 110.07 per 1,000 during the last five years, against 88.22 during the preceding five-year period.

The details of accident frequency by single years are given in the following table derived from the statistical reports of the Interstate Commerce Commission.

NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES AMONG RAILWAY TRAINMEN IN THE UNITED STATES, BY YEARS, 1897 TO 1906.

[Compiled from annual reports of the Interstate Commerce Commission on Statistics of Railways in the United States.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897	161,397	976	6.05	13,795	85.47
1898	170,708	1,141	6.68	15,645	91.65
1899	178,851	1,155	6.46	16,663	93.17
1900	191,198	1,396	7.30	17,571	91.90
1901	209,043	1,537	7.35	16,715	79.96
1902	225,422	1,674	7.43	21,603	95.39
1903	253,660	2,070	8.16	25,676	101.22
1904	253,834	2,114	8.33	29,275	115.33
1905	265,175	1,990	7.50	29,853	112.58
1906	285,556	2,310	8.09	34,989	122.53
Total, 5 years, 1897 to 1901	911,197	6,205	6.81	80,389	88.22
Total, 5 years, 1902 to 1906	1,283,647	10,158	7.91	141,296	110.07
Total, 10 years, 1897 to 1906	2,194,844	16,363	7.46	221,685	101.00

^a Mortality Statistics, 1906, United States Bureau of the Census, p. 86.

^b Statistics of Railways in the United States, Interstate Commerce Commission, 1906, p. 109.

ACCIDENT LIABILITY OF SWITCH TENDERS AND FLAGMEN.

The next most important group of railroad employees is switch tenders, crossing tenders, and watchmen. The number of men in this employment during 1906 was nearly 50,000. The fatal accident rate for the group was 2.96 per 1,000, and the nonfatal accident rate 20.66. The fatality rate during the last five years was 4.11 against 4.89 during the preceding five years. The injury rate was 32.14 against 51.87. The improvement in the accident rate in this occupation is chiefly the result of improved grade crossings, the introduction of a more satisfactory signal system, the operation of switches and gates from signal towers, and other improvements along these lines. The details of accident frequency by single years are set forth in the next table.

NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES AMONG RAILWAY SWITCH TENDERS, CROSSING TENDERS, AND WATCHMEN IN THE UNITED STATES, BY YEARS, 1897 TO 1906.

[Compiled from annual reports of the Interstate Commerce Commission on Statistics of Railways in the United States.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	43,768	201	4.59	2,423	55.36
1898.....	47,124	242	5.14	2,677	56.81
1899.....	48,686	273	5.61	2,992	61.46
1900.....	50,789	272	5.36	3,060	60.25
1901.....	47,576	175	3.68	1,190	25.01
1902.....	50,489	200	3.96	1,443	28.58
1903.....	49,961	283	5.66	2,352	47.08
1904.....	46,262	229	4.95	2,070	44.75
1905.....	45,532	136	2.99	883	19.39
1906.....	49,659	147	2.96	1,026	20.66
Total, 5 years, 1897 to 1901.....	237,943	1,163	4.89	12,342	51.87
Total, 5 years, 1902 to 1906.....	241,903	995	4.11	7,774	32.14
Total, 10 years, 1897 to 1906.....	479,846	2,158	4.50	20,116	41.92

ACCIDENT LIABILITY OF RAILWAY MAIL CLERKS.

A very important though not very numerous group of employees in the railway service is railway mail clerks. During the year 1906 the number employed in this occupation was 13,317. There occurred among this group 16 deaths, or 1.20 per 1,000, and 77 injuries, or 5.78 per 1,000. The fatality rates have fluctuated considerably during the past ten years, having been as high as 1.85 per 1,000 in 1897 and as low as 0.46 per 1,000 in 1900. During the last five years the average fatality rate was 1.29 per 1,000, against 0.91 per 1,000 during the preceding five years. The rate of injuries has also increased from 5.69 per 1,000 during the first five years to 8.11 per 1,000 during the last five years of

the decade ending with 1906. The details of accident frequency by single years in this occupation are given in the table below:

NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES AMONG RAILWAY MAIL CLERKS IN THE UNITED STATES, BY YEARS, 1897 TO 1906.

[Compiled from the annual reports of the General Superintendent of the Railway Mail Service.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	7,573	14	1.85	33	4.36
1898.....	7,999	7	.88	34	4.25
1899.....	8,388	6	.72	50	5.96
1900.....	8,695	4	.46	57	6.56
1901.....	8,978	7	.78	63	7.02
1902.....	9,485	9	.95	88	9.28
1903.....	10,262	18	1.75	78	7.60
1904.....	11,270	18	1.60	90	7.99
1905.....	12,110	12	.99	125	10.32
1906.....	13,317	16	1.20	77	5.78
Total, 5 years, 1897 to 1901.....	41,633	38	.91	237	5.69
Total, 5 years, 1902 to 1906.....	56,444	73	1.29	458	8.11
Total, 10 years, 1897 to 1906.....	98,077	111	1.13	695	7.09

SPECIFIC ACCIDENT LIABILITY IN RAILWAY SERVICE.

The groups of railway employees, as defined by the Interstate Commerce Commission, are much too large to warrant safe conclusions regarding the accident risk in the more important specified occupations. The industrial mortality statistics of the Prudential Insurance Company, as exhibited at the St. Louis and Jamestown expositions, are for the time being more useful for practical purposes and are more conclusive. Out of 171 deaths of railway conductors during the ten years ending with 1906, 50, or 29.2 per cent, were from accidents. The proportionate mortality from accidents in this occupation at ages 15 to 24 was 50.0 per cent, at ages 25 to 34 it was 42.9 per cent, at ages 35 to 44 it was 31.0 per cent, at ages 45 to 54 it was 22.7 per cent, and at ages 55 to 64 it was 17.6 per cent. Among railway engineers there occurred 142 deaths, of which 42, or 29.6 per cent, were from accidents. The proportionate mortality was 40.0 per cent at ages 15 to 24, 61.9 per cent at ages 25 to 34, 37.9 per cent at ages 35 to 44, 25.0 per cent at ages 45 to 54, 19.5 per cent at ages 55 to 64, and 6.7 per cent at ages 65 to 74. There occurred 207 deaths of railway firemen, of which 111, or 53.6 per cent, were from accidents. The proportionate mortality was 64.8 per cent at ages 15 to 24, 58.9 per cent at ages 25 to 34, 43.5 per cent at ages 35 to 44, and 14.3 per cent at ages 45 to 54. Above this age the numbers are too small for a safe generalization. Among railway brakemen, both passenger and

freight, there occurred 917 deaths, of which 630, or 68.7 per cent, were from accidents. The proportionate mortality was 83.4 per cent at ages 15 to 24, 69.6 per cent at ages 25 to 34, 52.7 per cent at ages 35 to 44, 48.1 per cent at ages 45 to 54, and 29.6 per cent at ages 55 to 64. Among railway flagmen and switchmen there occurred 704 deaths, of which 208, or 29.5 per cent, were from accidents. The proportionate mortality was 61.5 per cent at ages 15 to 24, 50 per cent at ages 25 to 34, 38 per cent at ages 35 to 44, 25.5 per cent at ages 45 to 54, 20.6 per cent at ages 55 to 64, 14.1 per cent at ages 65 to 74, and 6.7 per cent at ages 75 to 84. There occurred 216 deaths of railway gatemen, of which 33, or 15.3 per cent, were from accidents. The proportionate mortality was 11.1 per cent at ages 25 to 34, 12.0 per cent at ages 35 to 44, 24.1 per cent at ages 45 to 54, 19.7 per cent at ages 55 to 64, and 1 per cent at ages 65 to 74. Among railway freight handlers there occurred 193 deaths, of which 30, or 15.5 per cent, were from accidents. The details of the accident mortality of conductors, engineers, and firemen are given below, but additional data for other occupations in the railway service are given in the appendix, Tables XII to XV.

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RAILWAY CONDUCTORS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	6	3	
25 to 34 years.....	49	21	
35 to 44 years.....	42	13	
45 to 54 years.....	44	10	
55 to 64 years.....	17	3	
65 years or over.....	13		
Total.....	171	50	

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RAILWAY ENGINEERS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	5	2	
25 to 34 years.....	21	13	
35 to 44 years.....	29	11	
45 to 54 years.....	28	7	
55 to 64 years.....	41	8	
65 years or over.....	18	1	
Total.....	142	42	

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RAILWAY FIREMEN, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	71	46	64.8
25 to 34 years.....	90	53	58.9
35 to 44 years.....	23	10	43.5
45 to 54 years.....	14	2	14.3
55 to 64 years.....	4		
65 years or over.....	5		
Total.....	207	111	53.6

THE RAILWAY ACCIDENT PROBLEM.

Railroad accidents to employees have within recent years attracted considerable attention. It is one of the most important occupations, indispensable to the needs of the nation, but in which, at the same time, the risk to life, health, and well-being is one of the most serious met with in industrial employments. The evidence is overwhelming that a large number of railroad casualties are preventable, but while much has been published upon the subject, no thoroughly qualified inquiry into the accident hazard of individual employments has ever been made, either by the Interstate Commerce Commission or the numerous State railroad commissions. Such an inquiry would emphasize the very serious risk in certain well-defined occupations, which, as made evident by insurance mortality experience, falls most heavily upon the economically most important period of life—that is, ages under 45.^(*)

ACCIDENTS IN TRANSPORTATION BY WATER.

ACCIDENTS IN NAVIGATION.

The accident risk of navigation is at present but very imperfectly known for the merchant marine and the fisheries of the United States. The census of 1900 returned 3,125 deaths from drowning among 28,073 accidental deaths of males 15 years of age or over, or 11.13 per cent, but how many of these deaths were the result of employment in navigation is not known. The annual report of the Supervising Inspector-General of the Steamboat-Inspection Service returned the number of lives lost, so far as reported in steamboat navigation, as 505 during 1907, but the return includes both employees and passen-

^{*} For a further discussion of fatal accidents to railway employees by the writer, see the issues of *The Spectator*, New York, for December 5 and 19, 1895, and January 2, 1896.

gers. Of the 505 lives lost as the result of accidents in steam navigation, 193 were the result of collision; 129 of accidental drowning; 55 because of snags, wrecks, and sinking; 31 because of fire; 27 because of explosion or accidental escape of steam; 4 because of accidents to machinery; 3 because of breaking of steam pipes, etc., and 63 from miscellaneous causes. The classification is a very imperfect one, and does not afford a clear insight into the navigation accident problem. It would be advisable to consolidate the data for a period of years and to make a more critical analysis of the returns. At present the specific occupation accident risk in navigation is practically ignored in the reports. It is also quite probable that the returns are more or less defective, and that the true mortality from navigation casualties is much greater than the accident liability as indicated by the reports. A clear distinction should also be made between accidents to employees and others, in conformity to the practice of the Interstate Commerce Commission.

NAVIGATION ACCIDENTS IN GREAT BRITAIN.

The United States Life-Saving Service also reports upon the subject, but without distinction of passengers and crews lost through marine casualties or saved through the efforts of the service. The most conclusive statistical data are the English mortality returns for the three years ending with 1902, which give a fluctuating accident rate of from 3.06 to 4.19 per 1,000 per annum, according to age. According to these returns, at ages 15 to 19 among seamen, the fatal accident rate was 3.75 per 1,000, at ages 20 to 24 it was 3.24, at 25 to 34 it was 3.06, at 35 to 44 it was 4.19, at 45 to 54 it was 4.14, at 55 to 64 it was 4.05, and at 65 or over it was 3.44 per 1,000. Much valuable additional information is also contained in the annual reports to the registrar-general by the Marine Department of the British Board of Trade. Out of 2,303 deaths from all causes among seamen during the fiscal year 1905, 1,159 were from disease, 610 from wrecks or casualties, and 354 from other accidents. The corresponding death rates were 9.8 per 1,000 for all causes, 4.9 for disease, 2.6 for deaths caused by wrecks or casualties, and 2.3 by other accidents. Some very suggestive facts are disclosed by the following official table that clearly emphasize the need for similar information for the United States:

INDUSTRIAL ACCIDENTS.

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NUMBER OF FATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES AMONG SEAMEN IN THE UNITED KINGDOM, BY YEARS, 1897 TO 1906.

[From the Sixty-ninth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England and Wales, p. 78.]

Year ending June 30—	Number of seamen.	Deaths from accidents.			Fatal accident rate per 1,000 employees.
		Wrecks or casualties to vessels.	Other causes.	Total.	
1897.....	219,233	899	732	1,631	7.44
1898.....	218,016	489	650	1,139	5.22
1899.....	219,383	1,081	662	1,743	7.95
1900.....	221,107	769	667	1,436	6.49
1901.....	224,545	844	670	1,514	6.74
1902.....	225,443	775	621	1,396	6.19
1903.....	230,161	501	643	1,144	4.97
1904.....	233,482	481	581	1,062	4.55
1905.....	234,577	610	534	1,144	4.88
1906.....	237,811	574	637	1,211	5.09
Total, 5 years, 1897 to 1901.....	1,102,284	4,082	3,381	7,463	6.77
Total, 5 years, 1902 to 1906.....	1,161,474	2,941	3,016	5,957	5.13
Total, 10 years, 1897 to 1906.....	2,263,758	7,023	6,397	13,420	5.93

NUMBER OF FATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES AMONG SEAMEN IN STEAM AND SAIL NAVIGATION IN THE UNITED KINGDOM, BY YEARS, 1897 TO 1906.

[From the Sixty-ninth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England and Wales, p. 78.]

Year.	Sailing vessels.			Steam vessels.		
	Number of employees.	Fatal accidents.		Number of employees.	Fatal accidents.	
		Number.	Rate per 1,000 employees.		Number.	Rate per 1,000 employees.
1897.....	53,267	680	12.77	165,966	951	5.73
1898.....	49,858	486	9.75	168,158	653	3.88
1899.....	46,553	625	13.43	172,830	1,118	6.47
1900.....	43,356	498	11.49	177,751	938	5.28
1901.....	41,151	679	16.50	183,394	835	4.55
1902.....	38,400	479	12.47	187,043	917	4.90
1903.....	36,406	371	10.19	193,755	773	3.99
1904.....	34,748	477	13.73	198,734	585	2.94
1905.....	32,466	433	13.34	202,111	711	3.52
1906.....	30,204	430	14.24	207,607	781	3.76
Total, 5 years, 1897 to 1901.....	234,185	2,968	12.67	868,099	4,495	5.18
Total, 5 years, 1902 to 1906.....	172,224	2,190	12.72	989,250	3,767	3.81
Total, 10 years, 1897 to 1906.....	406,409	5,158	12.69	1,857,349	8,262	4.45

A valuable distinction is made in these tables in the return of persons employed in navigation by sail and navigation by steam in the United Kingdom, the former invariably showing a much higher general death rate and accident rate than the latter. Among persons employed in navigation by sail the rate during 1906 was 19.1 per 1,000 from all causes, 4.8 from disease, 9.5 from wrecks and casualties, and 4.8 from accidents other than wrecks and casualties. Among persons employed in the navigation of steam vessels during 1906, the mortality from all causes was 9.2, from disease 5.4, from wrecks or casualties

1.4, and from accidents other than wrecks or casualties 2.4 per 1,000. Among persons employed in the navigation of sailing vessels, the accident rate from wrecks or casualties during the last fifteen years has been as high as 12.2 and as low as 5.1 per 1,000. Among persons employed in the navigation of steam vessels the accident rate from wrecks or casualties has been as high as 3.9 and as low as 0.9 per 1,000.

NAVIGATION ACCIDENTS IN THE UNITED STATES.

For the United States we have no corresponding data. The extent of our merchant marine, however, is emphasized by the fact that during 1906 the number employed in transportation by water was 140,929, of which 60.2 per cent were employed on freight and passenger vessels, 3.2 per cent on ferryboats, 14.8 per cent on tugs and other towing vessels, 14.3 per cent on unriggered craft, 5.5 per cent on yachts, and 2.0 per cent on other vessels.^(a) The only conclusive data regarding the accident liability in American shipping are the statistics of the industrial insurance company, previously referred to, and which, among other data, were exhibited at the Jamestown Exposition. Out of 505 deaths of sailors and mariners, except captains, 89, or 17.6 per cent, were from accidents. The proportionate mortality at ages 15 to 24 was 50.7 per cent, at 25 to 34 it was 17.3 per cent, at 35 to 44 24.2 per cent, at 45 to 54 12.7 per cent, at 55 to 64 10.2 per cent, and at 65 to 74 it was 4.9 per cent. Out of 126 deaths of sea captains, chiefly engaged in deep sea navigation, 16 deaths were from accident, or 12.7 per cent of the mortality from all causes. Out of 230 deaths of captains not otherwise specified 39, or 17.0 per cent, were from accidents. The proportionate mortality was quite high at ages under 35, and somewhat less at ages over 35, fairly corresponding to the accident liability of sailors and mariners. The number of deaths is not sufficiently large to warrant final conclusions regarding the accident liability by divisional periods of life. Out of 468 deaths of boatmen 94 died from accident, or 20.1 per cent of the mortality from all causes. The proportionate mortality from accident was much higher at ages under 35 than at ages over 35. Out of 68 deaths of bridge tenders, which may properly be included in marine risks, 16, or 23.5 per cent, died from accidents. And, finally, out of 125 deaths of riggers, 22, or 17.6 per cent, were from accidents. The numbers, while fairly indicative of general conditions, are not sufficiently large to warrant final conclusions as to the accident liability by divisional periods of life. The details of the mortality from accidents among captains and sailors are given below, but additional data for other employees in navigation are given in the appendix, Tables XVI and XVII.

^a See Census Bulletin No. 91, on Transportation by Water in 1906, p. 53.

INDUSTRIAL ACCIDENTS.

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NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG SAILORS AND MARINERS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
24 years.....	71	36	50.7
34 years.....	81	14	17.3
44 years.....	62	15	24.2
54 years.....	71	9	12.7
64 years.....	106	11	10.2
75 or over.....	111	4	3.6
Total.....	505	89	17.6

* Including one, age unknown.

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG SEA CAPTAINS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
24 years.....	2	1	50.0
34 years.....	3	3	100.0
44 years.....	8	8	30.8
54 years.....	26	3	10.0
64 years.....	30	1	1.8
75 or over.....	57	1	1.8
Total.....	126	16	12.7

NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG CAPTAINS (NOT SPECIFIED), BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
24 years.....	3	2	66.6
34 years.....	9	5	55.6
44 years.....	27	5	18.5
54 years.....	54	16	29.6
64 years.....	60	9	15.0
75 or over.....	76	2	2.6
Total.....	230	39	17.0

* Including one, age unknown.

ACCIDENTS AT DOCKS AND WHARVES.

A large number of men, including stevedores, warehousemen, freight handlers, etc., are employed at docks and wharves in connection with shipping. There are no useful statistical data regarding the accident liability of this class of labor in the United States, but English returns are quite conclusive. Out of 4,551 accidents among persons employed at docks and wharves, from all causes, reported to certifying surgeons during the four years ending with 1903 for the United Kingdom, 535, or 11.76 per cent, were fatal. Some data of value are also included in the report of the registrar-general of England and Wales on occupation mortality for the three years ending with 1902. The general accident rate among dock and wharf laborers was 1.38 per 1,000, increasing gradually from the younger to the older ages. At ages 20 to 24 the rate was 0.70, at 25 to 34 it was 1.15, at 35 to 44 it was 1.28, at 45 to 54 it was 1.82, at 55 to 64 it was 2.34, and at 65 or over it was 2.92 per 1,000. The occupation was made the subject of a special report upon *The Causation and Prevention of Accidents at Docks, Wharves and Quays*, printed as a parliamentary document in 1900. According to this report, in 1899 there occurred 115 fatal accidents in connection with labor at docks, wharves, and quays, of which 19 were caused by cranes and other lifting tackle, 13 by other machinery moved by power, 1 by machinery not moved by mechanical power, 2 by explosion, 1 by escape of gas, 45 by falls, and 34 by causes not included in the foregoing enumeration. The report is a valuable contribution to the literature of industrial accident prevention. There are no corresponding data regarding this occupation for the United States.^(a)

ACCIDENTS IN THE FISHERIES.

The loss of life in the American fisheries is also a matter of mere conjecture. The only statistical data of value are the annual estimates of the loss of life in the Gloucester fisheries, which employ approximately 4,200 men. During the ten years ending with 1906 the number of lives lost was 516, or at the rate of 11.7 per 1,000 per annum. The fatality rate during the last few years has been considerably below the average, having been as high as 18.2 per 1,000 during 1902, and as low as 4.8 per 1,000 during 1906. The accident risk naturally varies considerably according to the fishing

^a Another interesting and most valuable report has recently been published upon deep-water diving, an indispensable occupation regarding which it is of much importance to obtain more definite and conclusive information than is at present available for this or other countries. (Report of a committee appointed by the Lords Commissioners of the Admiralty to consider and report upon the Conditions of Deep-Water Diving. London, 1907.)

rounds, whether on the high seas, lakes, rivers, etc. English data are more definite and conclusive. The conditions, however, under which the fisheries are carried on are quite different. The English data for the three years ending 1902 return an accident liability of 1.89 per 1,000. The rate fluctuates somewhat according to age. According to the Prudential industrial experience, as exhibited at the Jamestown Exposition, out of 162 deaths from all causes among fishermen, 24, or 14.8 per cent, were from accident. The proportionate mortality was 45.5 per cent at ages 15 to 24, 36.8 per cent at 25 to 34, 23.8 per cent at 35 to 44, 10 per cent at 45 to 54, 7.5 per cent at 55 to 64, and 5.1 per cent at 65 to 74. Out of 178 deaths among men employed in the oyster fisheries 14, or 7.9 per cent, were from accident. Details of accident frequency are given in the table below, derived from data furnished by The Procter Brothers Company, of Gloucester, Mass.

NUMBER OF FATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN THE FISHERIES OF GLOUCESTER, MASS., BY YEARS, 1897 TO 1906.

[From list of vessels belonging to the district of Gloucester, 1906.]

Year.	Estimated average number of employees.	Lives reported lost.	
		Number.	Rate per 1,000 employees.
1897.....	4,500	63	14.0
1898.....	4,500	62	13.8
1899.....	4,500	68	15.1
1900.....	4,500	53	11.8
1901.....	4,500	46	10.2
1902.....	4,513	82	18.2
1903.....	4,400	76	17.3
1904.....	4,300	25	5.8
1905.....	4,232	21	5.0
1906.....	4,200	20	4.8
Total, 5 years, 1897 to 1901.....	22,500	292	13.0
Total, 5 years, 1902 to 1906.....	21,645	224	10.3
Total, 10 years, 1897 to 1906.....	44,145	516	11.7

ACCIDENTS IN THE LIFE-SAVING SERVICE.

There is another occupation which may properly be included in this brief survey of the marine-accident risk, and that is the accident liability of life savers. During the ten years ending with 1906 there occurred in this employment 17 deaths from accident, equivalent to a rate of 0.9 per 1,000. The rate has been as high as 3.8 per 1,000, in 1902, while during some years no death from accident has occurred. It is quite probable that the true accident liability of life savers as the result of their employment is higher than the indicated average accident risk for the last ten years. Quite a number of deaths result from exposure and overexertion, which are properly to be considered as occupation accidents and which, if included, would probably

increase the rate to 1.2 per 1,000 per annum. The details of accidents in this employment are set forth in the following table:

NUMBER OF FATAL ACCIDENTS AND OF DEATHS FROM ALL CAUSES AND RATE PER 1,000 EMPLOYEES IN THE UNITED STATES LIFE-SAVING SERVICE, BY YEARS, 1897 TO 1906.

[Compiled from the reports of the Life-Saving Service and the supplementary "List of Persons who have died in the Life-Saving Service, as shown by the records of the Treasury Department."]

Year ending June 30—	Estimated average number of employees.	Fatal accidents.		Deaths from all causes.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	1,995			5	2.5
1898.....	2,036	1	0.5	2	1.0
1899.....	2,050	2	1.0	6	2.9
1900.....	2,052			13	6.3
1901.....	2,071	1	.5	5	2.4
1902.....	2,091	8	3.8	17	8.1
1903.....	2,108	1	.5	11	5.2
1904.....	2,092	3	1.4	6	2.9
1905.....	2,137	1	.5	8	3.7
1906.....	2,160			6	2.8
Total, 5 years, 1897 to 1901.....	9,404	4	.4	31	3.3
Total, 5 years, 1902 to 1906.....	10,588	13	1.2	48	4.5
Total, 10 years, 1897 to 1906.....	19,992	17	.9	79	4.0

CAUSES OF ACCIDENTS.

It has been necessary to omit any extended discussion of the causes of accidents and rational methods of their prevention as not strictly within the scope of this article. The analysis of industrial accidents in New York State, covering the years 1901 to 1906, brings out the fact that more than half the casualties and accidents in industry are the immediate result of machinery in motion. Of 864 fatal accidents, 475, or 55.0 per cent, were caused by machinery. Most of the fatal accidents in this group were caused by gearing, belts, shafting, pulleys, elevators, hoists, and cranes. Of the fatal accidents not caused by machinery, the majority were caused by hot liquids, acids, steam, explosives, collapse of buildings, falling objects, fall of persons, vehicles, and animals. Of the nonfatal accidents, 54.6 per cent were caused by machinery and 45.4 per cent were due to other causes. The analysis by industries is exceptionally interesting, and it is a matter of regret that this classification of accidents by causes and industries should have been discontinued.^(*) The details of the analysis are given in the table below:

^(*) The bureau of factory inspection has recently decided to resume the compilation of industrial accident statistics by industries, and the annual report for 1908 will again contain the statistics discontinued in 1905.

NUMBER AND PER CENT OF FATAL AND OF NONFATAL ACCIDENTS IN THE INDUSTRIES OF NEW YORK STATE, BY CAUSES, FOR THE PERIOD 1901 TO 1905.

Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Causes.	Fatal accidents.		Nonfatal accidents.		Total accidents.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
aring, belts, shafting, pulleys, etc.....	150	17.4	2,557	6.7	2,707	6.9
evators, hoists, cranes, etc.....	198	22.9	2,625	6.8	2,823	7.2
ws, planes, lathes.....	36	4.2	3,400	8.9	3,436	8.8
asses, stamping machines.....	6	.7	2,399	6.2	2,405	6.1
ery wheels and buffers.....	8	.9	838	2.2	846	2.1
xtile machinery.....	5	.6	1,595	4.2	1,600	4.1
ber machines and machine tools.....	72	8.3	7,544	19.6	7,616	19.4
Total machinery.....	475	55.0	20,958	54.6	21,433	54.6
nd tools (axes, saws, hammers).....			1,680	4.4	1,680	4.3
xplosives.....	51	5.9	301	.8	352	.9
t liquids, acids, steam, etc.....	99	11.5	2,476	6.5	2,575	6.6
lapses of buildings and falling objects.....	84	9.7	3,031	7.9	3,115	7.9
ill of persons.....	66	7.6	2,263	5.9	2,329	5.9
andling of merchandise.....	20	2.3	3,513	9.1	3,533	9.0
ehicles and animals.....	18	2.1	912	2.4	930	2.4
ll other causes.....	51	5.9	3,246	8.4	3,297	8.4
Total other than machinery.....	389	45.0	17,422	45.4	17,811	45.4
Grand total.....	864	100.0	38,380	100.0	39,244	100.0

THE PROBLEM OF ACCIDENT PREVENTION.

The present state of American industrial accident statistics does not warrant final conclusions regarding the true rate of the risk in different employments nor of the approximate determination of the occupation hazard, by degree of injury, for the more important industrial employments. Most of the present information is limited to the facts of accidental death or injuries generally, and while such data have their value they require to be made more specific to throw light upon the larger problem of accident prevention and workingmen's compensation for industrial casualties. The importance of such information has been clearly brought out in an address on "Valuation, in Actions for Damages for Negligence, of Human Life, Destroyed or Impaired," by Miles M. Dawson, before the International Actuarial Congress in 1903.^(a) For insurance and other purposes, however, the data presented in this article will prove useful and emphasize the more dangerous trades and the present tendency toward an increase or decrease in the risk of accidental injury in the more important dangerous occupations.^(b) To the workman himself there is no more important problem than the most effective

^a Proceedings Fourth International Congress of Actuaries, 1904, Vol. I, p. 929.

^b A useful and suggestive work on the prevention of accidents in industry has been published by the German Association of Trade Unions entitled: Unfallverhütungsvorschriften, herausgegeben vom Verbande Deutscher Berufsgenossenschaften, Berlin, 1900. Mention may also be made of a valuable treatise on definition of invalidity under the title: Der Begriff der Erwerbsunfähigkeit auf dem Gebiete des Versicherungswesens, by H. Siefert, Berlin, 1906.

protection of his life and health against the accident risk inherent in, or incidental to, the occupation in which he is employed. Much that could be done for his protection is still neglected, though many important and far-reaching improvements have been introduced in factory practice during the last decade. Accurate statistics alone can furnish a reasonable basis for reform. The possibilities for successful accident prevention have been clearly demonstrated in the experience of foreign countries and the exhibition of safety devices of the American Institute for Social Service.

SOCIAL ASPECTS OF THE ACCIDENT PROBLEM.

The facts presented in this article warrant the conclusion that the casualty risk in American industries is a most serious one, toward the reduction of which every effort should be made. At least a more earnest effort should be made to profit by the industrial methods of European countries. Granting that the underlying conditions are often quite different, and that many of our industrial accidents are the result of ignorance, reckless indifference, or carelessness, the fact remains that an immense amount of human life is wasted and a vast amount of injury is done to health and strength, with resulting physical impairment, which has a very considerable economic value to the nation as a whole. If, for illustration, the accident liability of employees in coal mines in the United States were reduced from 3.10 per 1,000, which was the average annual rate for the period 1897-1906,^(a) to 1.29 per 1,000, the average rate in the United Kingdom for the same period, ^(b) the annual saving in human life would be 915. If the rate of casualties of railway employees in this country were reduced from 2.50 per 1,000, which was the average annual rate for 1897-1906,^(c) to 0.98 per 1,000, the average for the German Empire for the same period,^(d) the annual saving would be 1,735 valuable human lives. As stated at the outset, upon a conservative estimate, the total mortality from accidents in the United States among adult male wage-earners is between 30,000 and 35,000, of which it should not be impossible to save at least one-third and perhaps one-half by intelligent and rational methods of factory inspection, legislation, and control. In addition there were approximately not much less than two million nonfatal accidents, that not only involve a vast amount of human suffering and sorrow, but materially curtail the normal longevity among those exposed to the often needless risk of industrial casualties.

^a Computed from the mine inspectors' reports of the various States.

^b Computed from statistics included in the annual reports of the Home Office entitled "Mines and Quarries: General Reports and Statistics, London."

^c Computed from statistics shown in the Report of the Interstate Commerce Commission, Statistics of Railways, 1906, pp. 42, 109.

^d Computed from Statistisches Jahrbuch für das Deutsche Reich, 1908, pp. 85-88.

APPENDIX.

TABLE I.—NUMBER AND PER CENT OF ACCIDENTS IN THE METAL SMELTING AND MINING INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Scalds and burns.....	26	13.1
Cuts, etc.....	48	24.2
Strains, etc.....	30	15.2
Fractures.....	37	18.7
Sprains and dislocations.....	5	2.5
Other injuries.....	21	10.6
Total, temporary disablement.....	176	88.9
Permanent disablement:		
Partial or complete loss of eyes.....	1	.5
Partial or complete loss of limbs.....	1	.5
Partial or complete loss of hands or feet.....	1	.5
Other injuries.....	10	5.1
Total, permanent disablement.....	13	6.6
Number of injury not stated.....	1	.5
Accidents.....	8	4.0
Total accidents of all degrees.....	198	100.0

TABLE II.—NUMBER AND PER CENT OF ACCIDENTS IN ROLLING MILLS AND TIN PLATE INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported.	
	Number.	Per cent.
Temporary disablement:		
Scalds and burns.....	92	15.1
Cuts, etc.....	87	14.2
Strains, etc.....	147	24.1
Fractures.....	100	16.4
Sprains and dislocations.....	22	3.6
Other injuries.....	40	6.5
Total, temporary disablement.....	523	85.6
Permanent disablement:		
Partial or complete loss of eyes.....	4	.6
Partial or complete loss of limbs.....	6	1.0
Partial or complete loss of hands or feet.....	3	.5
Other injuries.....	2	.3
Total, permanent disablement.....	45	7.4
Total, permanent disablement.....	60	9.8
Number of injury not stated.....	3	.5
Accidents.....	25	4.1
Total accidents of all degrees.....	611	100.0

TABLE III.—NUMBER AND PER CENT OF ACCIDENTS IN THE MANUFACTURE OF STEAM ENGINES, BOILERS, PUMPS, ETC., IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported	
	Number.	Per cent.
Temporary disablement:		
Lacerations.....	505	
Burns.....	116	
Cuts, etc.....	698	
Bruises.....	737	
Sprains and dislocations.....	122	
Fractures.....	201	
Other injuries.....	179	
Total, temporary disablement.....	2,558	
Permanent disablement:		
Partial or complete loss of eyes.....	15	
Partial or complete loss of limbs.....	9	
Partial or complete loss of hands or feet.....	11	
Internal injuries.....	12	
Other injuries.....	270	
Total, permanent disablement.....	317	
Degree of injury not stated.....	3	
Fatal accidents.....	33	
Total accidents of all degrees.....	2,911	

TABLE IV.—NUMBER AND PER CENT OF ACCIDENTS IN OTHER METAL INDUSTRIES IN NEW YORK STATE, BY DEGREE OF INJURY, FOR THE PERIOD 1901 TO 1905.

[Compiled from the annual reports of the New York Bureau of Factory Inspection, 1901 to 1905.]

Degree of accidental injury.	Accidents reported	
	Number.	Per cent.
Temporary disablement:		
Lacerations.....	949	
Burns.....	322	
Cuts, etc.....	1,077	
Bruises.....	673	
Sprains and dislocations.....	155	
Fractures.....	298	
Other injuries.....	266	
Total, temporary disablement.....	3,740	
Permanent disablement:		
Partial or complete loss of eyes.....	29	
Partial or complete loss of limbs.....	11	
Partial or complete loss of hands or feet.....	38	
Internal injuries.....	16	
Other injuries.....	822	
Total, permanent disablement.....	916	
Degree of injury not stated.....	11	
Fatal accidents.....	69	
Total accidents of all degrees.....	4,736	

TABLE V.—NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN COAL MINES OF ILLINOIS, BY YEARS, 1897 TO 1906.

[Compiled from the Annual Coal Reports of the Illinois Bureau of Labor Statistics.]

Year	Number of employ-ees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 em-ployees.	Number.	Rate per 1,000 em-ployees.
1897.....	33,788	69	2.04	518	15.33
1898.....	35,026	75	2.14	438	12.50
1899.....	36,991	84	2.27	597	16.14
1900.....	39,384	94	2.39	611	15.51
1901.....	44,143	99	2.24	422	9.56
1902.....	46,005	99	2.15	406	8.83
1903.....	49,814	156	3.13	410	8.23
1904.....	54,774	157	2.87	507	9.26
1905.....	59,230	199	3.36	535	9.03
1906.....	62,283	155	2.49	490	7.71
Total, 5 years, 1897 to 1901.....	189,332	421	2.22	2,586	13.66
Total, 5 years, 1902 to 1906.....	272,106	766	2.82	2,338	8.59
Total, 10 years, 1897 to 1906.....	461,438	1,187	2.57	4,924	10.67

TABLE VI.—NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN COAL MINES OF MISSOURI, BY YEARS, 1897 TO 1906.

[Compiled from the Annual Reports of the Missouri Bureau of Mines and Mine Inspection.]

Year.	Number of employ-ees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 em-ployees.	Number.	Rate per 1,000 em-ployees.
1897.....	6,557	8	1.22	23	3.51
1898.....	7,391	9	1.22	27	3.65
1899.....	7,792	14	1.80	23	2.95
1900.....	7,650	10	1.31	23	3.01
1901.....	9,226	15	1.63	16	1.73
1902.....	9,161	10	1.09	18	1.96
1903.....	9,177	17	1.85	22	2.40
1904.....	10,134	11	1.09	16	1.58
1905.....	10,415	11	1.06	36	3.46
1906.....	9,679	16	1.65	27	2.79
Total, 5 years, 1897 to 1901.....	38,616	56	1.45	112	2.90
Total, 5 years, 1902 to 1906.....	48,566	65	1.34	119	2.45
Total, 10 years, 1897 to 1906.....	87,182	121	1.39	231	2.65

TABLE VII.—NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER 1,000 EMPLOYEES IN COAL MINES OF COLORADO, BY YEARS, 1897 TO 1906.

[Compiled from the Biennial Reports of the Inspector of Coal Mines of Colorado.]

Year.	Number of em-ployees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 em-ployees.	Number.	Rate per 1,000 em-ployees.
1897.....	7,016	35	4.99	54	7.70
1898.....	7,425	24	3.23	72	9.70
1899.....	7,321	42	5.74	108	14.75
1900.....	7,271	29	3.99	70	9.63
1901.....	8,000	55	6.88	81	10.13
1902.....	9,000	73	8.11	105	11.67
1903.....	10,296	40	3.89	110	10.68
1904.....	10,769	89	8.26	118	10.96
1905.....	11,891	59	4.96	100	8.41
1906.....	12,030	88	7.32	160	13.30
Total, 5 years, 1897 to 1901.....	37,033	185	5.00	355	10.40
Total, 5 years, 1902 to 1906.....	53,986	349	6.46	593	10.98
Total, 10 years, 1897 to 1906.....	91,019	534	5.87	978	10.74

TABLE VIII.—NUMBER OF FATAL AND OF NONFATAL ACCIDENTS AND RATE PER EMPLOYEES IN IRON ORE MINES (INSIDE AND OUTSIDE WORK) OF DICKINSON COUNTY, MICH., BY YEARS, 1897 TO 1906.

[From Annual Reports of the Inspector of Mines, Dickinson County, Michigan.]

Year.	Inside employees.			Outside employees.		
	Number of employees.	Number of fatal accidents.	Rate per 1,000 employees.	Number of employees.	Number of fatal accidents.	Rate per 1,000 employees.
1897.....	1,532	8	5.22	629	2	
1898.....	1,801	9	5.00	669	2	
1899.....	2,097	6	2.86	776	3	
1900.....	2,314	15	6.48	899	4	
1901.....	2,604	24	9.22	863	3	
1902.....	2,864	8	2.79	1,079	2	
1903.....	2,789	16	5.74	1,215		
1904.....	1,950	6	3.08	1,098	3	
1905.....	2,221	8	3.60	991	1	
1906.....	2,233	11	4.93	1,256	4	
Total, 5 years, 1897 to 1901.....	10,348	62	5.99	3,836	14	
Total, 5 years, 1902 to 1906.....	12,057	49	4.06	5,639	10	
Total, 10 years, 1897 to 1906.....	22,405	111	4.95	9,475	24	

TABLE IX.—NUMBER OF FATAL AND NONFATAL ACCIDENTS AND RATE PER EMPLOYEES IN METAL MINES IN MONTANA, BY YEARS, 1897 TO 1906.

[Compiled from the Annual Reports of the Inspector of Mines of Montana.]

Year.	Number of employees.	Fatal accidents.		Nonfatal accidents.	
		Number.	Rate per 1,000 employees.	Number.	Rate per 1,000 employees.
1897.....	9,825	52	5.29	29	
1898.....	11,096	48	4.33	29	
1899.....	12,316	49	3.98	22	
1900.....	13,996	47	3.36	35	
1901.....	12,078	35	2.90	33	
1902.....	13,784	47	3.41	45	
1903.....	14,175	39	2.75	50	
1904.....	14,480	41	2.83	55	
1905.....	14,680	48	3.27	41	
1906.....	15,000	52	3.47	43	
Total, 5 years, 1897 to 1901.....	59,311	231	3.89	148	
Total, 5 years, 1902 to 1906.....	72,119	227	3.15	234	
Total, 10 years, 1897 to 1906.....	131,430	458	3.48	382	

TABLE X.—NUMBER OF INSIDE AND OF OUTSIDE EMPLOYEES IN QUARRIES IN THE UNITED KINGDOM, AND NUMBER AND RATE PER 1,000 OF FATAL ACCIDENTS TO SUCH EMPLOYEES, BY YEARS, 1897 TO 1906.

[From annual report of the Home Office on Mines and Quarries: General Report and Statistics, 1906, p. 46.]

Year.	Inside employees.			Outside employees.			Inside and outside employees.		
	Number.	Number killed.	Accident rate per 1,000 employees.	Number.	Number killed.	Accident rate per 1,000 employees.	Total number.	Total number killed.	Accident rate per 1,000 employees.
1897.....	58,845	93	1.58	64,525	30	0.46	123,370	123	1.00
1898.....	62,752	100	1.59	71,726	34	.47	134,478	134	1.00
1899.....	64,159	98	1.53	33,836	19	.56	97,995	117	1.19
1900.....	60,631	115	1.90	33,264	12	.36	93,895	127	1.35
1901.....	59,968	86	1.43	34,220	12	.35	94,188	98	1.04
1902.....	62,429	103	1.65	34,679	16	.46	97,108	119	1.23
1903.....	62,921	84	1.34	35,234	11	.31	98,155	95	.97
1904.....	62,249	96	1.54	35,328	16	.45	97,577	112	1.15
1905.....	59,978	85	1.42	34,841	14	.40	94,819	99	1.04
1906.....	58,385	85	1.46	33,131	12	.36	91,516	97	1.06
Total, 5 years, 1897 to 1901.	306,355	492	1.61	237,571	107	.45	543,926	599	1.10
Total, 5 years, 1902 to 1906.	305,962	453	1.48	173,213	69	.40	479,175	522	1.09
Total, 10 years, 1897 to 1906.	612,317	945	1.54	410,784	176	.43	1,023,101	1,121	1.10

TABLE XI.—NUMBER OF FATAL ACCIDENTS IN QUARRIES IN THE UNITED KINGDOM, BY YEARS AND CAUSES, 1897 TO 1906.

[From Eleventh Abstract of Labor Statistics of the United Kingdom, p. 117.]

Year.	Number of deaths of persons—						Accident rate per 1,000 employees.
	Inside the quarry—			Outside the quarry—		Total.	
	By falls of ground.	By blasting.	Miscellaneous.	By machinery.	Miscellaneous.		
1897.....	51	13	29	10	20	123	1.00
1898.....	44	10	46	15	19	134	1.00
1899.....	44	8	46	8	11	117	1.19
1900.....	53	13	49	2	10	127	1.35
1901.....	39	15	32	4	8	98	1.04
1902.....	44	16	43	6	10	119	1.23
1903.....	44	8	32	4	7	95	.97
1904.....	38	11	47	1	15	112	1.15
1905.....	33	15	37	3	11	99	1.04
1906.....	39	11	35	1	11	97	1.06

TABLE XII.—NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RAILWAY BRAKEMEN, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	325	271	83.4
25 to 34 years.....	355	247	69.6
35 to 44 years.....	150	79	52.7
45 to 54 years.....	52	25	48.1
55 to 64 years.....	27	8	29.6
65 years or over.....	8	.....	.....
Total.....	917	630	68.7

TABLE XIII.—NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RAILWAY FLAGMEN AND SWITCHMEN, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accident	
		Number.	Per cent of all deaths.
15 to 24 years.....	52	32	
25 to 34 years.....	114	57	
35 to 44 years.....	106	37	
45 to 54 years.....	98	25	
55 to 64 years.....	175	36	
65 years or over.....	159	21	
Total.....	704	208	

TABLE XIV.—NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RAILWAY GATEMEN, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1907.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accident	
		Number.	Per cent of all deaths.
15 to 24 years.....	4		
25 to 34 years.....	9	1	
35 to 44 years.....	25	3	
45 to 54 years.....	29	7	
55 to 64 years.....	66	13	
65 years or over.....	83	9	
Total.....	216	33	

TABLE XV.—NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RAILWAY FREIGHT HANDLERS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accident	
		Number.	Per cent of all deaths.
15 to 24 years.....	14	3	
25 to 34 years.....	37	6	
35 to 44 years.....	48	12	
45 to 54 years.....	37	5	
55 to 64 years.....	34	3	
65 years or over.....	23	1	
Total.....	193	30	

INDUSTRIAL ACCIDENTS.

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TABLE XVI.—NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG BOATMEN, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	22	12	54.6
25 to 34 years.....	85	21	24.7
35 to 44 years.....	72	13	18.1
45 to 54 years.....	87	27	31.0
55 to 64 years.....	102	15	14.7
65 years or over.....	100	6	6.0
Total.....	468	94	20.1

TABLE XVII.—NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG BRIDGE TENDERS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	3	3	100.0
25 to 34 years.....	4	1	25.0
35 to 44 years.....	11	3	27.3
45 to 54 years.....	13	1	7.7
55 to 64 years.....	26	7	26.9
65 years or over.....	11	1	9.1
Total.....	68	16	23.5

TABLE XVIII.—NUMBER OF DEATHS FROM ACCIDENTS COMPARED WITH NUMBER OF DEATHS FROM ALL CAUSES AMONG RIGGERS, BY AGE GROUPS, FOR THE PERIOD 1897 TO 1906.

[From mortality experience of an industrial insurance company.]

Age at death.	Deaths from all causes.	Deaths from accidents.	
		Number.	Per cent of deaths from all causes.
15 to 24 years.....	20	4	20.0
25 to 34 years.....	28	3	10.7
35 to 44 years.....	30	8	26.7
45 to 54 years.....	33	4	12.1
55 to 64 years.....	14	3	21.4
Total.....	125	22	17.6

MEXICAN LABOR IN THE UNITED STATES.

BY VICTOR S. CLARK, PH. D.

INTRODUCTION.

Within less than a decade there has been a large increase in the amount of Mexican labor employed in the United States; but more marked than the growth of numbers has been the increasing range of its distribution. As recently as 1900 immigrant Mexicans were seldom found more than a hundred miles from the border. Now they are working as unskilled laborers and as section hands as far east as Chicago and as far north as Iowa, Wyoming, and San Francisco. The number of different industries dependent upon Mexican labor is increasing. In some occupations Mexicans are rapidly displacing Japanese, Greeks, and even Italians. Lack of education and initiative confines most of these immigrants to the simpler forms of unskilled labor. They compete little, if at all, with what is called "white labor" in the Southwest. They work well and are contented in the desert, where Europeans and Orientals either become dissatisfied or prove unable to withstand the climate. Except in Texas and in California, few Mexicans become permanent residents, and even in those two States a majority are transient laborers who seldom remain more than six months at a time in this country. The volume of Mexican immigration, compared with that of Italians or Slavs upon the Atlantic coast, is still small, in spite of a recent increase. Complete statistics of those who cross the frontier are not kept, but the number does not exceed 100,000 per annum, and probably is not over 60,000. These people, however, are entering a sparsely settled territory with a great demand for labor. Their migration is having important economic effects in Mexico as well as in the United States. And it is becoming an agency of something approaching a social revolution among the Mexican laboring classes.

THE IMMIGRANT.

The Mexican who comes to the United States as a laborer is from the peon or from the tramp labor class of Mexico. The term "pelado," by which those migrating into Texas are known, signifies literally the man who has been stripped, a sort of intensified

"sans culottes," and indicates that the Mexicans crossing the lower Rio Grande come largely from the migratory laboring class of their own country. In California the Mexican laborers are known as "cholos," a word borrowed from Peru, where it applies to a certain type of Indian. It indicates nothing as to the original status of the immigrant. Probably most of the laborers entering the United States from El Paso or westward, with the exception of a few miners from Sonora and from Chihuahua, were originally in peonage, though they may have escaped from this relation some time before migrating to the north.

Mexicans of either of these classes are Indians, with a slight infusion of white blood. They are Indians in physique, temperament, character, and mentality. A person familiar with Mexico can tell the State or district a laborer hails from by the old tribal peculiarities of his underlying Indian stock. It is said that Mexicans have been unwittingly admitted to Indian schools in the United States without their nationality being known. And yet in almost any large group of Mexican laborers individuals are encountered who, in different surroundings, would easily pass for Europeans. By contact here and there with the upper classes of Mexico and with the older European culture that has given them their language and religion, these laborers have acquired a certain vivacity of expression and demeanor, and probably at least superficial habits of thought, that are largely foreign to the American Indian. Still, this Spanish manner varies in degree with different individuals, and with the immigrants as a body is less in evidence than the dull, docile patience of the Mexican Indian race.

The Mexicans who cross the border to work are either making their first trip to the United States or are making a second or third seasonal visit from the interior of Mexico or are of that big class of American-Mexican frontier residents who reside intermittently in either country. These last are less apt to travel widely or to work regularly, except during cotton-picking time in Texas and in Oklahoma; their migratory habits are not of recent origin, and they are not vacating old industries in Mexico to enter new occupations in the United States. The immigrant of interest is the one who has recently appeared in the field, coming from the central part of the Republic, leaving his ancestral home and callings, and ready to venture almost anywhere in search of work.

These immigrants appear at the border in sombrero, serape, and sandals, which, before crossing the river, they usually exchange for a suit of "American" clothing, shoes, and a less conspicuous hat. In fact, at Juarez and at El Paso a thriving trade of old clothes has sprung up to meet this demand.

SOURCE OF IMMIGRATION.

The source of most of this immigration is the group of States lying just north of the Valley of Mexico, and chiefly on the western and better-watered slope of the central plateau. This is the most fertile and densely populated portion of the Republic. These States are Jalisco (which is reputed to have the best laborers), Michoacan, Guanajuato, Aguas Calientes, and Zacatecas. Some labor moves northward along the National Railroad of Mexico to Laredo and to Eagle Pass from Queretaro and San Luis Potosi, which are adjoining States; but the chief migration at present is along the Mexican Central Railway, from the district mentioned to El Paso. South of this region the relatively high wages paid tropical plantation labor in Mexico, the greater distance and less direct communication to the north, and the attractions of the capital combine, with other inducements, to keep the laborers from emigrating in any considerable numbers to the United States.

Agriculture and mining are the main industries of this central district. Land is held mostly, though not exclusively, in large estates, and its chief value depends upon resident labor. Subordinate to the rights of the great proprietor are secondary forms of tenure, so well established by custom that the cultivator seems about as well protected by them as a holder in fee simple. When the railroads buy rights of way in Mexico, in many instances they have to acquire two practically independent titles to the same land, one from the "hacendado," the other from the Indian cultivator. The latter, in connection with his right to a specific tract of irrigated land, owns common rights—such as the privilege of pasturing a certain number of head of stock in the open fields. These cultivators are usually settled in villages along water courses. Whether these tenure customs are aboriginal or European in origin, they are now part of the life of the people, and ordinarily give permanence to the agricultural population in the parts of the Republic where they prevail. They explain such contradictory statements of the immigrant as that he belongs on such and such an "hacienda," and Señor So-and-so is his "patron;" and at the same time that he owns a piece of land and expects to return home in time to plant or harvest his crop.

These customary tenant rights probably modify and mitigate the institution of peonage in many parts of Mexico. What is sometimes called the "peon country" (the group of States just mentioned) appears to be precisely where these little villages of feudal tenants are most common, and one of the most interesting secondary effects of the tide of emigration starting northward from this section to the United States is its probable influence in breaking up the patriarchal organization of agriculture and landholding in Mexico.

Peonage is a debt relation between the employee or tenant and his employer, in which the former is to serve the latter until the debt is extinguished, receiving in the meantime subsistence and certain customary perquisites. The debt is seldom paid in full, because, as a rule, neither party seriously desires it to be paid. If the employee discovered that his account with his employer was about even, he would, in many instances, make this an excuse for obtaining a liberal cash loan from his "patron" to celebrate the next "fiesta," and the "patron" would probably encourage this extravagance on the part of the employee. In Mexico peonage rests solely upon custom and has no specific legal sanction.

The mines of central Mexico were originally worked by slaves or by peons, but for a long time free Mexican labor has been used. Until recently this labor has received a very low wage, rendered still lower in many cases by dependence upon a company store for supplies. It may be doubted whether the wage-earning mine workers of some interior camps have been really more independent, until recently, than the professed peons on the large estates. Like the estates, the central Mexico mining camps have contributed a considerable quota to the emigration northward.

METHOD OF MIGRATION.

In Mexico railways have given the opportunity and the inducement to emigration. Needing unskilled labor for their construction and maintenance, they drew upon the agricultural population along their lines, at first for a few days or weeks of temporary service between crops and later for more extended periods. At first the true peon was extremely averse to leaving his home, and would not work where he could not sleep under his own roof, but gradually he became bolder and more worldly-wise and could be prevailed upon to work for a month or so a hundred miles or more up and down the line. He became accustomed to having silver in his pocket occasionally and found it would exchange for things he had not heretofore thought of having for his personal use. He became attached to cash wages in about the same degree that he became detached from his home surroundings. Employers in the more primitive parts of Mexico say that at present the people will not work for money so long as they have food in their cabins. When they first leave home they will work only long enough to provide themselves with food and shelter for a few days in advance. But the railways, bringing a greater variety of wares at lower prices, have made possible the attractive shop of the railway town, and this market for money has made the latter a more desirable commodity in the eyes of the peon. He has become more of a spender and so a more persistent earner. Even at desert sidings, with

nothing but an adobe hut in sight, laborers come aboard the train in numbers to buy candy and other trifles from the train peddler. The railways thus have attracted labor and have held it more and more permanently from a constantly widening area along their lines.

The railroads that enter Mexico from the United States run for several hundred miles from the border through a desert and very sparsely settled country, but all of them ultimately tap more populous and fertile regions. Along the northern portion of their routes resident labor is so scarce that workers are brought from the south as section hands and for new construction. This has carried the central Mexican villager a thousand miles from his home and to within a few miles of the border, and American employers, with a gold wage, have had little difficulty in attracting him across that not very formidable dividing line. A general officer of the National Railroad of Mexico stated that his company had brought north about 1,500 laborers to work on the upper section of the road within a year, and that practically all of them had ultimately crossed over into Texas. In September, 1907, 400 were employed in a single gang, principally at ballasting. In October 290 of these were dismissed and, because only 30 applied for their (free) return transportation south, their foreman assumed the others had crossed the border. Wages north of the Rio Grande, in Texas, are \$1 to \$1.25 gold, as compared with the same rate in silver south of the river. And it must be borne in mind that prices, except for labor, are no lower in this part of Mexico than in the United States.

Officials of the Mexican Central Railway stated that their laborers in the vicinity of the city of Chihuahua, brought from Aguas Calientes and farther south, were constantly leaving them for the United States, so that a considerable part of their force was really labor in transit. Wages here were as high as \$1.50 and \$1.75 (for extra gangs) in silver; but north of this section of the border the gold wages are higher than in southeastern Texas.

Mines were worked in northern Mexico before railways entered the country, but the development has been so marked since that event as to cause an entire transformation of the industry. Like the railways, the mines have had to import labor from the south; and they also have as steadily lost labor to the United States. The representative of one group of mining properties in the State of Chihuahua said that within a year he had brought to that vicinity approximately 8,000 mine laborers from Zacatecas and the older mining districts of central Mexico, and that not far from 80 per cent of these had left, a part going to New Mexico and the remainder to Arizona.

Thus there is a constant movement of labor northward inside of *Mexico itself* to supply the growing demands of the less-developed

States, and this supply is ultimately absorbed by the still more exigent demand—as expressed in wage rates—of the border States and Territories of the United States. Besides this, there is doubtless some recruiting, direct or indirect, by the representatives of American employment agencies. Men are met in Mexico who assert that they have either been engaged or have been approached with a view to engagement in this business. The contract labor and immigration laws of the United States are designed to apply to seaports and to oversea immigrants, therefore their provisions are not difficult to evade, because they are so inapplicable to conditions on the Mexican border. Still, a large part of this immigration is not stimulated, except by general economic conditions.

A number of the immigrants probably come with their own money, or with the assistance of friends or relatives already working in the United States. The migration of cotton pickers into Texas and into Oklahoma is almost entirely of this character at present, though a few years ago “bunches” of labor are said to have been recruited openly in Mexico for Texas plantations. And the tendency is for labor to come across more freely and spontaneously with increasing experience of the advantages afforded in the United States. Employment agents receive the newcomers at the boundary line, greeting them with usually bona fide offers of work at fair wages.

Recruited laborers, whether destined for northern Mexico or for the United States, travel in parties, under a boss or “cabo,” who holds the tickets. One is told of locked car doors and armed guards on the platforms of trains to prevent desertions en route; but if these things ever occur, they were not observed in traveling along these lines. Desertions take place, however, and the problem of the recruiter is to deliver a sufficient number of laborers to make a plausible show for his fee—for he seldom delivers all he starts out with. This is not due to the fact that the work he offers is less attractive or well paid, but partly because the peon, in spite of his apparent simple-mindedness, had already selected a different destination when he joined the party, and traveled with it only so far as the free transportation suited his convenience.

After he reaches the United States the Mexican is said to observe contracts better than itinerant white labor. An employment agent in Colorado said: “Roving Mexicans are better than roving white men. They will go to a job, if they agree to, and work, though they may not stay long.” Another agent said he usually lost but 2 or 3 per cent of a gang of Mexicans sent to a job while en route, but that ten times that proportion of white men, doing the same kind of work, would desert, after receiving their transportation either the whole distance or to some intermediate point. Mexicans will leave a job after working a few days, and are constantly lured away from the

railways by farmers and ranchers. In 1907 30 per cent of those in southern Kansas are said to have deserted to work in the wheat fields. Whole gangs at a time leave the Texas sections to pick cotton. One contractor said he lost an entire gang, after paying \$12.50 railway fare a head, before they reached the job to which they had been sent. A railway official in Dallas, though expressing satisfaction with Mexican track labor, said that 50 per cent left the road to work for the farmers soon after receiving their fare to their job. The Southern Pacific Company loses to the mines a large fraction of its labor each year. In the employment agencies the men's hands are examined, and those that have drill callouses, indicating that they have worked in mines in Mexico, are rejected for railway jobs, because they are the most likely to desert. The motive for leaving railway work is the higher wages paid in other occupations.

Most immigrants passing through El Paso reported that they had paid their own fare directly from some town named in one of the interior States, with money obtained by a "sacrifice"—such as the sale of a yoke of steers, a pair of burros, a crop of corn—or by loans from a "patron" or a relative. Several boys, who reported their ages as between 17 and 20 years, said they had been given money by their father to come to the United States to work, and that their father had obtained the money from his "patron" or by the sale of some small property. Many of these statements are doubtless true in substance, while others are manufactured for the occasion. Recruited laborers who are given transportation are probably supplied with personal information to be used at the frontier.

Interest was aroused by the number of immigrants who reported that they had paid their railway fare with money loaned them by a "patron." The name of the "patron" was often given, and he was sometimes a political officer—in one case a judge—and sometimes a merchant, possibly also a landowner. Strictly the word "patron" might be expected to mean an employer, and especially the employer to whom the immigrant had rendered traditional service as a peon. But this class of employers is so unanimously hostile to the emigration of labor that it is extremely unlikely that any one of them would assist this movement, even though he received a high rate of interest on his money. The immigrants claimed to be paying from 5 to 12 per cent for loans running probably six months. In the districts of Mexico from which this labor comes every one from whom information was sought, without exception, scouted the idea that a bona fide employer could be induced by any means within reach of his workmen to assist them to emigrate, even for temporary employment abroad. The common opinion there was that these so-called "patrons" were secretly representing employing interests either in northern Mexico or the United States, and that they were possibly

collecting railway fare from the employer on one hand and from the laborer on the other, charging the latter in addition with interest. Whether or not this is ever done, the story told by the immigrant on the border, of aid received from his "patron" to enable him to leave the country, is nowhere credited by well-informed residents of the interior.

Tickets from points in Jalisco and in Guanajuato to El Paso cost the emigrants from \$20 to \$25 in Mexican currency, or one-half that amount in American money. Laborers appear usually to provide themselves with from \$30 to \$50 (Mexican) for a trip to the United States. A good riding horse or a few pigs sell for the former sum, so it is not beyond the reach of most industrious peasants. Nearly all the immigrants who had left families behind them explained that they had given their wives a few dollars for subsistence during their absence.

Mexicans residing on the American side of the boundary line said that even where there is easy railway communication a laborer and his family will often travel 300 miles on foot to reach the border. This was near El Paso. During a good cotton season in Texas laborers often come on foot and go back in carriages which they have purchased with their season's earnings. Though the Mexican of the Indian type is not ambitious, when he once gets a definite object in view he appears to be very persistent in following it up. A youngish boy passing through the El Paso station stated, and as proof showed his calloused hands, that he had worked in a quarry in Mexico for two years. His wages had been \$6 Mexican (\$3 United States currency) a month and rations, and it had taken him the full two years to save money enough to get to the frontier. He wanted to come to the United States, because during one week he could earn more there than during a month in Mexico.

Immigration, especially through El Paso, was larger than usual during the season of 1907, partly because a drought had followed upon the unfavorably wet year of 1906. Crops were short, provisions expensive, and work not so abundant as usual in exclusively agricultural sections. This made it easier for the "enganchadores" (recruiters, or, more literally, pressmen) to secure workers for mines and for other large enterprises, and also stimulated voluntary emigration.

The Mexican laborer usually migrates for short periods. When the rains begin, usually about May, he must be at home to plant his crop. After that he is willing to work during the growing period, leaving his family to attend to irrigation and weeding; but he must be at home for the harvest. From that time until the fiestas ending with the December holidays are over, the labor market in Mexico is tight; from January to May the workman is willing to go anywhere pro-

vided it is not too cold. This seasonal variation in the labor supply accounts in part for the comparatively short periods for which immigrants come to the United States. Many of those passing through El Paso have made the trip from central Mexico to Arizona or to Kansas City for a second or third time, but after a number of such trips the home tie loosens, and it is not unusual for the family ultimately to accompany the husband, thus taking the next step toward a permanent removal, either across the border or to its vicinity.

Along the Mexican Central Railway the migrating months are said by the railway officials to be February, March, and April; also August and September.

DISTRIBUTING CENTERS.

Probably more Mexican laborers enter the United States through El Paso than cross the border either east or west of that city. During August, 1907, there were admitted at this point 5,802 laborers, and during September of the same year 5,765. From January to the end of September about 26,000 were admitted. The reasons that make El Paso the most important distributing point for Mexican immigration are its direct railway communication with the swarming States of Mexico; the presence across the border, in the State of Chihuahua, of large mines and smelters, which, in supplying their own needs, assist the southern laborer to the frontier; and the direct railway communication that the city enjoys with such chief labor-absorbing areas of the United States as the prairie grain and cotton region, the Colorado and the Territorial mining fields, and California. Three great railway systems that diverge from El Paso use Mexican unskilled labor largely, and in some cases almost exclusively, over a principal part of their route; and railways are the great labor feeders to other industries.

West of El Paso there is considerable diffusion of mining labor across the border both from northern Chihuahua and Sonora; and some labor enters from the west coast of Mexico, by the Guaymas line, through Nogales. After the Southern Pacific Company's extension is completed and a west coast connection made with Guadalajara, the capital of the populous State of Jalisco, and the second city in size of the Republic, it is probable that a much larger movement of labor will occur across this part of the boundary line.

Immigrants crossing the Rio Grande east of El Paso usually find employment in Texas, either upon railways or ranches or as farm laborers. Some of this immigration passes north into Oklahoma during cotton-picking time, and it works southeastward into Louisiana, where Mexicans are being introduced on cane plantations. Much of this labor reaches the frontier at Eagle Pass, at Laredo, and at

Brownsville. Near the latter town, in the early autumn of 1907, sixty boats were said to be employed ferrying Mexicans across to the United States. But the immigration to Texas is not confined to railway points to the same extent as farther west, partly because the neighboring sections of Mexico are a trifle less desert and partly because of the long-established intercourse all along the border, antedating the railways and even American possession of the country.

Of the border cities mentioned El Paso is the only one that is a real labor depot. San Antonio is probably the most important distributing point of Mexican labor for Texas proper. Kansas City, Mo., is given as their destination by many arrivals at El Paso, and that city is resorted to by them as an employment center. Los Angeles serves the same purpose for Southern California, and has a large colony from Old Mexico. Tucson, Ariz., and Trinidad and Denver, Colo., have agents that handle a fairly large number of Mexican laborers.

METHOD OF DISTRIBUTION.

The immigrants arrive at the border practically without funds, but with the moral certainty of securing immediate employment. Here they are met by the representatives of large authorized labor contracting companies, who regularly supply an entire railway system, or many of its divisions, with all the labor needed, and by private agents looking for smaller bodies of men for some special section, or simply speculating in labor; that is, holding it at their headquarters on subsistence until they can secure a good commission by delivering it to some enterprise badly in need of workers. These speculating agents are said to mislead men with promises of work at high wages which they are unable to provide, in order to keep them away from competing agencies.

The large labor contractors combine with this business that of supplying provisions, clothing, and other commissary articles to the workers during their term of employment. Indeed, this is their main source of revenue, and some firms are said to furnish labor to railways without commission in return for the privilege of keeping the commissary. The workingman buys at the commissary because he can get credit there, which is not given by other merchants; and the commissary can grant this credit, because its arrangement with the employing corporations gives it the exclusive right to charge such debts against the pay roll. Laborers who pay cash are generally free to patronize other stores. Although commissary debts are thus secured to some extent, prices are high, the reason given for this being that losses from bad debts are very heavy.

After the immigrant has been given a job he receives transportation to his place of work from the labor agent. This transportation

is furnished free by the railways to men employed by themselves and at reduced party rates to other employers. Besides this the agent has to provide subsistence to destination, an amount varying from less than a dollar to \$3 or \$4 in case of long journeys. This subsistence and paid railway fares are charged to the laborer's account and repaid by him from wages. The distance that a laborer may be sent varies from a few miles to 2,000 miles. One of the larger firms had sent Mexican laborers to different railroads, during eight months of 1907, as follows: To the Chicago, Rock Island and Pacific Railway, 3,523; to the El Paso and Southwestern System, 1,593; to the Fort Worth and Denver City Railway, 973; and to the Pecos Valley and Northeastern Railway, 421.

Along the Texas border, and even in the larger labor centers, are men who secure laborers in small numbers for cotton and beet planters and other minor employers. Some of these recruiters are themselves hardly above the laboring class, and several are Mexicans or Spanish-speaking Americans. It is not unusual for a group of planters in northwestern Texas or Oklahoma, or a beet sugar company in Colorado, to send a manager or foreman to the Rio Grande to gather up a party of 100 or more men and their families, and some parties are taken even as far east as the Mississippi. But as a rule farmers and planters prefer to get laborers by offering higher wages than the railroads, thus drawing men from the sections and saving for themselves railway fare and the other expenses of recruiting.

In Mexico itself the "enganchadores" work principally among the city and tramp labor population, partly because in many country districts hostile sentiment and legislation make open recruiting dangerous. The "enganchados," as these recruited laborers are called, are not considered good workers by Mexican employers, and have the reputation of being mostly broken-down city workmen and loafers. Possibly they do not emigrate. American labor agents seem to think that men specially recruited from Mexico are better than those picked up by chance along the border. Possibly the recruiting for the American labor market is largely secret, and therefore conducted with more success in country districts and among a more reliable class of workmen than the labor drummed up openly for local enterprises.

The progress of the laborer from his home in interior Mexico to his place of work in the United States is therefore in two main stages; first, as a recruit he is taken, or as a free immigrant he works his way, to the border. At this point he falls into the hands of the labor agent, who passes him along to his final destination. The first stage of the journey may or may not be paid for by the laborer himself; the second is in practically all cases at the expense of the employer.

OCCUPATIONS IN WHICH MEXICANS ARE EMPLOYED.

RAILWAY LABORERS.

With the possible exception of agriculture at certain seasons, more Mexicans are employed in the United States as railway laborers than at any other occupation. It is from this occupation that they drift into other lines of work.

Mexicans are distributed as railway laborers over practically all of Texas, New Mexico, and Arizona. They are the main labor employed on the railroads of California as far north as Fresno, in southern Nevada, and in Colorado, and on some Colorado lines into Wyoming; also, they are working in increasing numbers along the Chicago, Rock Island and Pacific Railway, and the Atchison, Topeka and Santa Fe Railway through Kansas, Missouri, and even into Chicago and to central Iowa.

In Mexico native labor now does practically everything on a railroad except operate fast trains, superintend construction and administration, and do more responsible shopwork. In the United States this labor is confined to track maintenance—usually under American or European foremen—and construction, and employment as extra and yard gangs. There are many Mexican section bosses scattered throughout the Southwest, and their number is likely to increase.

The reasons for the growing use of Mexican labor in these occupations are that it is cheap and docile; but these qualities alone would not give it favor were it not also fairly efficient. Employers and foremen do not differentiate the various motives that induce them to prefer a certain kind of labor, but they are usually perfectly clear as to the order of choice among different nationalities.

A trackmaster who had worked various kinds of labor in southern Kansas said: "Mexicans are better than Greeks or Italians, and next to the American 'hobo.' They must be well fed, and want fresh beef and mutton, but don't eat so much pork. They don't have feuds and disorders like the Italians, who are always fighting unless the whole gang is from the same town in Italy. We send a man every spring to the Rio Grande to get our men for the summer. We have to keep our engagements with them, or we can't get any men the next year. Though they are used to low pay at home, they want as much as anybody when they get to this country." A Texas railway official said: "We have worked Mexicans out of El Paso for several years, and since 1903 have substituted them for Italians—who were disorderly—and for Negroes in northern Texas, nearly to Texarkana. They suit us better than any other immigrant labor we can get. They are better than Negroes at ballasting, laying ties, and ordinary track work; but the Negroes can beat them laying rails, and will work better long hours or at rush jobs, as in case of washouts or getting a track around

a wreck. Our chief difficulties are due to ignorance of the language, and to the rough ways of our foremen—who sometimes frighten the Mexicans so they won't work. Mexicans are not very regular, and we have to carry about 50 men on a pay roll to be sure of 30 to 35 men working every day."

A large labor contractor, who is also an employer, said: "I have not found Mexican laborers irregular on section work. They often average about twenty-five days a month. Some stay on the same section seven or eight years. Much depends on the foreman. I can tell the character of a section boss by the number of new men he wants. Some never need new men, because their old hands stay with them, and if any leave, others come from neighboring sections. I know good Mexican section foremen."

A road master in southern California said the Mexicans had been employed in his division four or five years and were displacing other labor. He preferred them to other laborers obtainable, especially to the Japanese. "When you have occasion to discharge one Japanese all would quit, and so you are left without men. But if a Mexican proves a poor or undesirable workman, you can let him go without breaking up the whole gang."

A railway contractor in Los Angeles expressed the same preference for the Mexican as compared with the Japanese, and said the latter could not be trusted to carry out a job just as directed, but that the Mexican was careful to do exactly as he was told. There was not a single instance in which men in actual touch with railroad labor did not give the Mexican the preference over either Japanese or Greek; but one manager stated that he would prefer Japanese, because they were more intelligent.

An objection to the Greeks, as stated by one contractor, was that they would submit to graft. On one system where Greeks were employed section bosses made them pay a dollar a month for their jobs, and shared the labor agents' fees when new men were brought on. The result was that the foremen, practically in the pay of their own workmen, lost authority over them, and the latter soldiered and neglected their work. Mexicans, it is said, will not submit to exactions of this kind, and this is a chief cause why they have lately been given a preference on the road in question.

No instances were discovered where the wages of section hands were less than \$1 a day in 1907, although in previous years men may have worked for 75 and 80 cents in some places near the frontier. Shop laborers at Laredo, Tex., received 75 cents in 1906 and \$1 in 1907. In addition to day wages, the men are given the use of huts or bunk cars. A short distance north from the border the rate of pay rises to \$1.25 a day, and this is generally the wage along the Atchison, *Topeka and Santa Fe* Railway and the Chicago, Rock Island and

Pacific Railway north of Texas. They received \$1.40 and \$1.50 a day in Kansas. In northern Texas section hands were paid \$1.15 in 1907, and were paid \$1 previously. In northern Arizona the rate had risen from \$1 to \$1.25 within a year or eighteen months. On the line of the Southern Pacific Company, near Bakersfield, Cal., the following rates were said to be in force for ordinary section hands: Greeks, \$1.60; Japanese, \$1.45, and Mexicans, \$1.25 a day. Foremen said that the Mexicans did as much work as men of either of the other nationalities, and that the discrimination in wages was due to arbitrary orders issued from headquarters by men who had no practical knowledge of the efficiency of different kinds of laborers.

Extra gangs are paid higher wages, partly because it is often necessary for them to board in camps, instead of receiving rations, which makes their cost of living higher. Mexicans of this class were paid as high as \$1.75 a day on the Fort Worth and Denver City Railway, in Texas, during the cotton-picking season of 1907. This high wage was partly to keep them away from the farmers. However, \$1.50 is not an unusual wage for Mexican extra men. Upon one railway in central and eastern Texas section hands were paid, in the summer of 1907, \$1 and board, or \$1.50 when they boarded themselves. This matter of board is not always left to the choice of the laborer. If he lives in a section house or hut at a station or section headquarters and is permanently located on one section, he usually has an opportunity to board himself; but if his work requires him to shift from section to section, and he lives in bunk cars, he is usually boarded. The character of the board depends upon local conditions, but testimony was general to the effect that railroads fed their men better than the men fed themselves. The houses provided for section men are very primitive in most cases, frequently being single-room adobe huts or cabins built of condemned ties set vertically with a roof of boards covered with earth, and a clay floor. Often there are no glass windows. These houses are as good as the laborer occupied in Mexico and seem to be adapted to his mode of living.

As he goes northward the section hand encounters a more severe climate, but, to compensate for this, higher wages and better housing. In Oklahoma, during the summer of 1907, scattering Mexicans were employed at \$1.50 a day, or the same wages paid Europeans. A gang of Mexicans worked near Fredonia, Iowa, until January 20, 1907, without apparent suffering. This was attributed to good food and warm houses.

In order to hold labor at lower wages the railroads give Mexicans return transportation to El Paso, if they have worked regularly three months. This applies to all railroads entering El Paso itself, but probably not to smaller lines and those distant from the frontier.

At the shops of the National Railroad of Mexico, in Laredo, common labor is paid \$1 (gold) a day. Until last year, when there was a strike, they were paid 75 cents a day. The present wage of these laborers is about four times that paid in similar occupations in central Mexico.

FARM LABORERS.

The Mexican immigrant has been in most cases an agricultural laborer in his own country, and, though his experience at home has given him little familiarity with American farming methods, it is to this occupation in the United States that he turns most readily when the opportunity offers. Cotton and corn, the staple crops of the States where Mexicans are most numerous in this country, are both cultivated extensively in Mexico. Stock raising is a great industry on both sides of the boundary line. In this industry the Mexicans, many of whom were born north of the border, have excelled for a long period. They are now found as shepherds, cowboys, and "broncho busters" as far north as Wyoming. But the main importance of Mexican labor in agriculture is during the harvest season in the cotton fields. Cotton picking suits the Mexican for several reasons: It requires nimble fingers rather than physical strength, in which he can not compete with the white man or the Negro; it employs his whole family; he can follow it from place to place, living out of doors, which seems to suit the half-subdued nomadic instinct of a part of the Mexican race; it is a seasonal occupation, fitting in conveniently with the demands of labor and leisure in his own country, and it is well paid, and paid by the piece.

In Texas and in Oklahoma cotton is raised by prairie farming methods, with more extensive use of machinery than farther east, where soil and climate, and the cotton itself, are different. In these two States a white farmer can raise more cotton than several families can pick in proper season, in the same way that the Kansas farmers can raise more wheat in normal years than the resident labor of the State can harvest. So the man with 40 or 80 acres of cotton opening secures two or three families of Mexicans that migrate from the southward at this season, camp in an outhouse or in their canvas-topped carts, and pick the fields clean, then move on northward to where the crop is just maturing.

Pickers are paid from 50 cents to \$1 a hundred pounds in the seed. Two or three hundred pounds is a fair day's work, though under favorable conditions 400 pounds are sometimes gathered. Children often pick as much as adults, so that a man with a family can earn \$5 or more a day during the height of the season.

In Texas Mexicans are employed throughout the year on onion and vegetable farms and as tenants or hired cultivators on cotton and rice plantations. Their home experience makes them very good

irrigators. For the cultivation of onions they are paid by the hundred. Wages on farms in southeastern Texas are about \$15 a month, the Mexican receiving shelter, but boarding himself. Wages, except during the very busy seasons, are about 60 cents a day. Mexicans are good grubbers, and are about the only laborers employed to clear the south Texas ranches of mesquite brush prior to cultivation. They do this work under contract by the acre, rates varying with the neighborhood and the amount of brush growing on the land. Near the lower Rio Grande ranch hands and shepherds are paid less. A Mexican interviewed had relatives working on a ranch near Laredo for \$8 a month and rations; but this was less than is commonly paid in the vicinity. In the country districts on both sides of the border Mexican money is current, and not many years ago it was not unusual to pay the wages of herders in this coin. Mexican shepherds in Lasalle County, Tex., were paid \$12 (Mexican currency) a month and a ration of coffee, beans, corn meal, salt, and goat meat.

Within two or three years wages have risen rapidly in the part of Texas dependent upon Mexican ranch and farm labor. A farmer in Ward County, near the western border of the State, said that in 1903 Mexican farm hands could still be hired for 50 and 75 cents a day, American currency, but that in 1907 they were paid \$1 and \$1.25 a day, and even higher. White farm labor commands \$1.75 and \$2 a day in the same country.

In Kansas and in northern Oklahoma many Mexicans now leave railway gangs to work in the grain fields during the harvest season. Contractors estimate that nearly one-third leave them for this reason.

In the vicinities of Rocky Ford and Sugar City, Colo., in the valley of the upper Arkansas, sugar beet cultivation has extended rapidly within the past seven years, and there are now six large factories operating in this district. Here immigrants from Old Mexico compete with New Mexicans, Russians, and Japanese in the beet and the melon fields. New Mexican laborers have been employed since 1900, but Old Mexicans have come in more recently. The latter have not displaced other laborers to the same extent as on the railways, but seem to have held their own without difficulty.^(a)

The beet factories own considerable land, which they cultivate either directly or through tenants; but they depend chiefly upon neighboring farmers for their supply of beets. The farmers raise under contract with the factories and their crop is financed partly by the manufacturers. The sugar companies also bring in what labor is needed from outside, assuring men an opportunity to earn 15 cents

^a For convenience the term "Old Mexicans" is used in this article to designate persons of Mexican descent born in Mexico, and "New Mexicans" to designate those of Mexican descent born in the United States, and mainly in New Mexico.

an hour. They advance railway fare from El Paso—about \$9.50 for each adult. Prices for contract work are the same for all nationalities, but Indian schoolboys from New Mexico have been brought in to work by the hour and are somewhat cheaper than other workers. However, on account of school duties, they work only in the spring. The contract price for thinning beets is about \$7 an acre, though it may range anywhere from \$6 to \$8. Beets are topped by the ton, the usual rate being 50 cents. A crop runs from 15 to 25 tons per acre. Japanese usually try to secure at least 15 acres to thin and top, but Mexicans will take less. Between the thinning and the topping season many Mexicans work in the melon fields at from 15 to 20 cents an hour, or find employment on the railway at \$1.25 to \$1.30 a day. The consensus of opinion among a number of beet growers was that Russians made the best laborers, both for the farmer and for the country, because they were better workers and ultimately bought land and became citizens. There was a less decided disposition to prefer Japanese to Mexicans, but the laborer from Old Mexico was generally preferred to the Spanish-speaking laborer from New Mexico as being both a more regular and a more reliable hand. At some mills Mexicans are preferred to Japanese. An attempt has been made, by building an adobe village, to hold the Mexicans as permanent settlers in the vicinity of the Swink factory.

The chief complaints against the Mexicans are that they are not reliable in observing their contracts and will not work regularly. The first brought into the country, about 1900, were driven out by hostile workingmen and farmers, but this sentiment against them is said to have disappeared. In competition with other and constantly more varied nationalities they are not increasing, or increase but slowly. In 1907 Koreans began to be employed—displacing principally the Japanese—and the temporary immigration of some 600 Indian laborers satisfied a demand that had formerly been filled by Mexicans. But immigrants from Old Mexico are displacing New Mexicans, and they continue to be more numerous than workers of any other nationality. Meantime, they are finding new fields of employment in kindred occupations elsewhere. Recently they have been shipped to some extent to the Greeley, Colo., potato country, where Europeans and Japanese have been the only imported labor employed heretofore.

In the irrigated sections of New Mexico and of Arizona local Spanish-speaking laborers, supplemented by some Mexicans from across the border, are employed in raising vegetables and alfalfa and other forage crops. When an attempt was made recently to establish sugar beet cultivation in the Salt River valley, Arizona, Japanese were brought in to raise this crop; but the enterprise failed, and the Japanese have left, not competing with Mexican laborers—who are

paid as high as \$2 a day at certain seasons—in other lines of farming and in ranching.

Mexicans are employed by fruit growers, sugar beet raisers, and general farmers in southern California; but in this State they are not relatively so important a source of rural labor supply as they are in Texas. Nevertheless the more extensive employment of Mexicans by the railroads is likely to result in their being used more by the farmers, who secure hands from railway gangs. Farm wages in southern California are very high, in many places not less than \$2 for good men, and this wage attracts a considerable supply of American labor.

From Texas, Mexicans have been taken east as far as the Mississippi River, and a few gangs of cotton pickers have been tried even in the Yazoo Delta, but with only partial success. The employment of Mexicans on cane plantations, already tried experimentally, may increase, more particularly during the harvest season; but they are not likely to be employed as mill laborers, and so far as could be learned have never been used in beet sugar factories.

The main value of the Mexican in agriculture is as a temporary worker in crops where the season is short, especially in harvesting cotton, grain, and sugar beets. Mexicans are not likely to be employed the year round by small farmers, because they are not entertained in the family like American, German, Scandinavian, or Irish laborers of the North. Yet they do not occupy a position analogous to that of the Negro in the South. They are not permanent, do not acquire land or establish themselves in little cabin homesteads, but remain nomadic and outside of American civilization.

MINE LABORERS.

Mexicans have become in a way the scavengers of the mining industry, picking up the positions left vacant by other classes of workers, and supplanting the least skilled and reliable Europeans and Asiatics. They mine both coal and metal at different places, especially in small mines with shallow workings, and are extensively employed as muckers and surface men. The Mexican is a fairly good man for development work, or for cheap mining undertakings where a poor or a penurious company wishes to "rat hole" a property; that is, work out the ore without scientific development or expert engineering advice. In Old Mexico native miners are employed exclusively in deep and dangerous workings that would try the skill of experienced white labor. Mining is in parts of that country almost a hereditary occupation with a certain class of workers; but miners of this kind either stay at home or else do not form a sufficiently important element in the Spanish-speaking mine popula-

tion of the American border States and Territories to raise the general character of this labor.

In the copper and silver mines of New Mexico and of Arizona, American and Cornish miners are employed, with considerable numbers of Italians and Slavs, who are both miners and laborers. The latter two nationalities predominate in the coal mines. American Negroes are sometimes employed as hostlers and mule men, but are rarely miners. In the larger camps, and in small camps connected with important properties, union labor is used. The Mexican supplements all these other kinds of labor. He will be found mining copper and silver—that is, using drill and powder—in some new mine opened in a new district, to the entire exclusion of white labor, yet later, if the property proves valuable, he may be supplanted wholly by skilled American miners. In a district where white labor is chiefly used a few Mexicans will sometimes be found in smaller and less profitable workings. In most border districts large gangs of Mexican surface men, wood choppers, and often muckers are encountered. There are large mining centers—as at Fierro, Silver City, and San Antonio, N. Mex., where coal and iron as well as other metals are mined—that use Mexican labor mainly, stripping and in shafts and drifts. This mingling of Mexican and white labor, without either supplanting the other entirely, comes from an equilibrium of competitive conditions, due to the general scarcity of labor, the extensive development now occurring, and the easy adjustment of the wage of the Mexican to his true worth. The rates paid white miners are standardized by custom and by union regulations and range from \$3 to \$5 a day. Mexicans will accept a rate much lower than this—not exceeding \$2 a day in most places—but they do not do as much work as a white man. Mining men were undecided which got out the ore for the least money. In one mine, where a complete change from Mexican to American miners had been made within twelve months, one of the owners attributed the change to the fact that the new manager was used to working with white men, adding that there was no special economy in changing, and at the same time no appreciable loss. He suggested, however, that a manager working for absentee owners might make a little more out of the Mexicans for himself, especially if he had an interest in the company store. Another mine owner, who was employing Mexicans alone, said that he was influenced by fear of labor difficulties—that his mine was isolated and a white union might tie it up entirely; but that if some of the Mexicans left him or became dissatisfied he could easily replace them.

In the coal mining district around Trinidad, Colo., Mexicans have been employed as strike breakers; but with Mexican labor exclusively the output of the mines was so irregular as to cause serious losses;

therefore, in this field other labor has been substituted almost entirely. The Mexicans make very fair coke pullers, and are employed especially upon extra gangs. They seem to prefer the irregular work and pay they get in these gangs to the monotony of steady employment even at a sure wage.

Within the Mexican labor area of the United States there are four coal-mining districts. The most important is in southern Kansas and Oklahoma, which employs chiefly Italians and Negroes, with no Mexicans except a few surface men employed at an extreme off-shoot—possibly not strictly a part of this field—at Thurber, Tex. The field of next importance and of prime importance for coking and ore reduction is in southern Colorado and northern New Mexico, the largest mines in the Territory having been opened within a year or two. Here Spanish-speaking labor, from both New Mexico and Mexico, is employed to some extent, though Slavs and Italians do most of the actual mining. In a careful analysis of the nationality of the mine workers employed by the Colorado Fuel and Iron Company in 1905, Dr. Walter Morritt, of the sociological department of the company, gives the following figures: North Italians, 1,139; South Italians, 489; Austrians, 851; Americans, 687; Mexicans, 650; Slavs, 355; Negroes, 304; English, 297; Hungarians, 245; Japanese, 105; Germans, 79; Poles, 68; Welsh, 68; Scotch, 58; Greeks, 58; Russians, 51; Montenegrins, 29; Swedes, 27; Irish, 26; French, 15; Finlanders, 12; Roumanians, 7; Arabs, 5; Swiss, 1, making a total of 5,626. The proportion of Mexicans—and the term here is applied to Spanish-speaking workers from both sides of the border—was larger than previously because this class of labor had been used as strike breakers during the strike of 1903-4. Doctor Morritt expresses the following unfavorable opinion of these workers: "The Indian and the Mexican are both utterly unadapted to the work of mining. The Mexican can be depended on for a certain amount of surface work, but he can rarely be persuaded to work underground. He is shiftless and lacks ambition, and only in time of strike, when extra inducements are offered in the way of best rooms in the mines, generous weights, donations of liquor on the part of the pit boss, is any underground work to be gotten out of him at all; and even then he is not to be relied upon after he has a few dollars to his credit with which to buy 'Dago Red,' as the cheap adulterated whisky is called."

But there are exceptions. The superintendent of one of the largest camps of this company said that while he did not employ enough Mexicans underground to affect the output of the mine materially, because they could not be relied upon to turn out the same amount every day, he found places for such as wanted to work. Mexicans averaged seventeen to eighteen days in their rooms, where European

miners averaged twenty-three and twenty-four days. Miners are paid 55 and 60 cents a long ton, mine run, in this district. Six of the best Mexicans earned, upon an average, within a fraction of \$55 each during the month of August, 1907, while the six best Italians and Slavs averaged within a fraction of a dollar of \$107 each during the same month. It is probable that the Europeans had better rooms, but they had no preference in rates and other conditions of employment. One mine superintendent spoke of the Mexican laborer as filling a peculiar place in the mining field, comparing him with the Italian as follows: "An Italian demands a good job and will work every day. You must show him that he can earn a good wage all the time. He wants to be sure that he will have so much at the end of the week. A Mexican is not particular about the kind of a job he gets, and will not work every day. He doesn't care about knowing how much he will earn the next month. He is willing to shift from job to job, and do one thing one day and another the next, while the Italian doesn't like that. So the Mexicans make good reserve labor, for emergencies and odd jobs. They will do a kind of work it is hard to get other labor to do, because they like to change about and don't want much money; that is, they don't care about saving anything." The manager of the coke ovens at this camp said that among the coke pullers three were Italians for one Mexican, but that among the day labor used around the ovens the proportion was about reversed. He thought Mexicans made good pullers, but they were not sure to be on hand when needed.

Most of the Mexican laborers in this district are American born, and though more intelligent, are less steady than laborers from Old Mexico. The faults that are here described would not be chargeable in the same degree to Mexican peasants who had emigrated to the United States and were far enough from home to feel their dependence upon a regular wage. The local Mexican laborers of Colorado and of New Mexico usually own a cabin and a small piece of land within walking distance of the camp, or within a day's journey, and therefore are more independent of regular wages.

The wages at the coke ovens were recently 80 and 90 cents per oven for pulling and loading on railway car. Levelers and chargers were paid 20 cents per hour; washers, 18½ to 20 cents per hour, and laborers 18½ cents per hour. A labor agent sent 14 immigrant Mexicans to the coke ovens near Trinidad, Colo., the day before his office was visited. They were to receive \$1.50 a day and rations.

A third coal mining field is along the Atchison, Topeka and Santa Fe Railway, near Gallup, N. Mex., within a few miles of the Arizona border. Only about 1,000 men are said to be employed in this district, at several mines. A majority are Italians and Slavs, and the prevailing rate is 58 cents a ton, mine run, 5 tons being a good

hours' work. Japanese and Negroes have been employed unsuccessfully. A few Mexicans work underground; and the surface are mostly New Mexicans and Indians. As miners they are not rated as Italians or Slavs, but equal the Japanese and the Greeks. A few Mexicans are employed, and they are not thought to be rated as New Mexicans. The latter are not local residents, but from other parts of the Territory.

Near the Rio Grande, on both sides of the river near Eagle Pass and Laredo, are mines of soft coal and lignite. Only Mexican miners are employed, though other nationalities have been tried. The reasons are the poor quality of the coal, the thin veins in some places, the arid country, and the heat and other climatic conditions, all unfavorable to white miners, and the proximity of large coal mining in Mexico employing native labor. About 1,000 men are employed by three companies in the vicinity of Laredo, and the number could be increased to 1,500 were labor obtainable. Workings are shallow and reached by inclines. The roof is bad and requires considerable timbering. The ton rate was not learned, but a manager estimated that miners could earn \$50 a month, but that they did not work regularly enough to do this. Near Eagle Pass the coal is better. The vein is worked from a shaft. The vein averages 6 to 8 feet, and yields soft coal. From 70 to 80 cents (American currency) a ton is paid, and good men can get out 2 tons a day. Labor is not scarce at present, but was before houses were repaired and prices lowered at the necessity. On the Mexican side of the river, in the same field, miners receive \$1.25 (silver) a ton, which is said to be the highest paid in Mexico.

A Mexican miner has the reputation of being very careless in both in timbering and in the use of powder, yet the Eagle Pass mines report only one fatal accident, in the mine itself, during several years of operation. This accident was due to a Mexican who entered a heading marked dangerous (skull and crossbones) by the inspector and tried for gas with an open lamp. He and his partner were both killed. In Mexico several serious mining accidents have been caused in this way, though the management had taken precautions to warn men of their danger. At Eagle Pass last year 11 Mexican miners were blown up while dividing a keg of powder when they had emptied out upon the floor of a cabin with an open lamp. The powder looked lumpy, and one man threw a piece of it into the fire to see if it was good. Such ignorant carelessness is one reason why American miners are unwilling to work in company with Mexicans.

The wages of metal miners in Arizona were given by one mine as \$2.50, which is double the rate paid a few years ago. In Montana mines, which have always employed Mexicans, miners

were said to earn \$2 to \$3 a day. Another mine manager in the same Territory said that when Americans were employed on time wages they were paid \$4 in the drifts and \$4.75 in the shafts. The latter were usually wet. The Mexican employees were either machine men, who earned \$2.50 to \$3 a day, or surface men and laborers in the mine, who were paid \$2 a day. At the Greene Cananea Copper Company mines at Cananea, Mexico, 40 miles south of the Arizona border, the following wages were paid in 1907 according to a statement by the owners: Mexican miners, \$3 a day; founders, in the smelter, \$3 to \$8 a day; common laborers (pick and shovel men), \$2.50, and superior laborers, \$3 a day. These wages are in Mexican currency and must be divided by two to give the rate in American money. At Silver City, N. Mex., Mexican miners were said to earn \$2 and \$3 a day. A mine owner in the same part of the Territory said that he was paying Mexicans, who were doing developing work in a copper mine, \$2 a day and rations. He had contracts with New Mexicans to sink a shaft at from \$6 to \$10 a foot, the rate varying with dimensions of the shaft and the character of the rock. The owner supplied powder and intrusted the work entirely to the men, only measuring off their work before advancing money on their contract. However, as compared with these wages, one Arizona mine owner was looking for labor in the vicinity of El Paso to take to Arizona, expecting to pay but \$1.50 a day. Without access to the books of a large number of mines, it would be impossible to estimate with any degree of assurance the average rates paid Mexican miners in these two Territories and the ratio their wages bear to those of white miners. Conditions vary in each mine, according to its remoteness from market, the deepness and danger of the workings, the cost of living, and whether it is worked on a time or contract basis. Furthermore, the actual earnings of Mexicans are affected by the irregularity with which they work.

It is certain that mining labor can not be held for less than \$1.50 a day, which is but 25 cents more than the railroads pay for less strenuous work, and it seems reasonable to assume that the Mexicans employed in mining occupations in the Territories do not earn on an average less than \$2 a day. This is about 50 cents more than they earn at Cananea, Mexico, where wages are probably as high as at any place in the Republic. In the lead silver mines around Chihuahua, where labor is dear for Mexico, surface men and muckers earn \$1.50 to \$2 a day. Mexican machine men receive from \$2 to \$3.50 a day, which is about the upper limit of mine earnings. Men who drill in pairs are paid 25 cents a "cuartilla," which is a trifle over 8 inches. Ten "cuartillas" each is considered a fair day's work. All of these wages and earnings quoted for Chihuahua are in Mexican currency, with a purchasing power about one-half that of American money.

As one goes south wages lessen. In one of the best mines of the Zacatecas district drillers are paid 85 cents each (\$1.70 for the pair) for $1\frac{1}{2}$ meters (59.06 inches), and 1 cent each for every centimeter (0.39 inch) above that. Miners who work regularly at this rate earn \$1.50 to \$2 a day. Muckers are paid \$1 a day, ore sorters 75 cents, and common surface laborers 60 cents. This means from a maximum of \$1 down to 30 cents a day in American currency. Sixty miles back from the railroad miners are paid but 75 cents (silver) a day. Ore sorting is an occupation of some importance. It is simply concentrating by hand, and is necessary in a country like Mexico, where ore is still brought to the railway on the backs of burros.

Mexican miners who cross the border from the States of Chihuahua and Sonora are considered a distinct class from the "cholos," or common laborers. But this is a trade distinction, since the miners are often quite as dark—that is, quite as much Indians—as the laborers. Managers and mine superintendents in the United States usually rate the Mexican-born miner very low, while mine employers in Mexico often hold a contrary opinion. One American manager said: "Mexicans have no heads and would be very expensive labor if paid anything like the same wage as whites." They are considered careless timbermen, not to be trusted except under white supervision. An English manager in Mexico said they did good timbering under competent supervision, but were very slow. In some Mexican mines near the border American miners are employed to shoot the blasts, because their better judgment in using powder compensates for the very high wages they are paid. A manager who had used Mexicans in Nevada said: "Mexicans will work in a smaller place than an American. They are good sluice box men and strippers, but you can't trust them, either to work honestly or with high grade ore." Ore stealing is very common among miners in Mexico, and there are buyers—sometimes Americans—in the chief mining centers of that country who make a regular business of purchasing high grade ores in small lots without asking where it came from. A mine owner in New Mexico remarked that Mexicans were often remarkably good judges of the quality and value of an ore. A mine owner in Lower California said his Mexicans were quick to learn, and that some would drill 12 feet a day per man in gneiss. It was remarked by other mine owners that miners in remote parts of the country, uninfluenced by modern ideas, worked harder and did more in a day than Mexicans in the vicinity of large camps and those who had been to the United States. Nevertheless, most testimony as to the effect of emigration upon the labor efficiency of Mexicans was the reverse of this.

One reason why Mexican miners are less esteemed in the United States than in Mexico is that, even assuming their efficiency to increase

somewhat with emigration, their wage rises in a still higher ratio. North of the border white miners are everywhere preferred on machines. Many Americans are employed as machine men in the country immediately south of the border, where Mexican labor commands high wages, but in Zacatecas, where the experiment was tried with selected American miners who were expert machine men and otherwise satisfactory employees, it was found considerably more economical to use Mexican machine men at the respective wages then prevailing.

American miners usually will not work in company with Mexican miners. One reason, as stated, is that the Mexicans are careless, unsystematic with poor judgment, and do not pin a mine well, so that where they are employed there is a considerable element of added risk. Another reason is the hostility of miners' unions to the employment of Mexicans as skilled laborers in mines.

The opposition of the unions to Mexicans is due largely to two causes. They are cheap labor; and though their lower wages may not lessen the labor cost of production, on account of their lower efficiency they constantly threaten the maintenance of the union wage. Also the Mexicans have been used as strike breakers.

The use of Mexicans to break strikes and to prevent the introduction of the closed shop in mining districts is described in a typical instance—the Colorado coal strike of 1903-4—by a representative of the employers as follows:

Equally favorable to the operators in Colorado is the presence of the Mexican. In the Eastern States the first effect of a strike is the worst, and its success depends largely upon the suddenness with which men leave. In Colorado it is otherwise. I have pointed out that the Mexican procures his livelihood at the cost of the least exertion. Ordinarily speaking, he can not find employment in the mines as long as more profitable labor is to be had. But in straits the Mexicans are given rooms in the mines. They do not get these at any direct advance in wages, but there are many ways—assignment of the more preferable rooms, liberal weights and measures, and sometimes a free hand distribution of whisky—whereby the actual wage is increased.

The Mexican thus brought to see that by a few weeks of hard labor in the mines he may earn more than by desultory attention to his goats for many months will regretfully drop the staff and take up the pick until he has perhaps laid up \$100. Then feeling rich he will work no longer. The shock of the strike is greatly lessened and the pressure upon the operators postponed until the latter may in some degree forearm themselves and the strength of the strikers is somewhat exhausted. Thus the native Mexican acts as a buffer to the blows of the strikers. The Mexican himself rarely strikes.

Most of the Mexicans above described were born in the United States. They owned little homesteads, and were not forced to work and they lived about as far north as Mexicans are employed in numbers and where their wage relatively to that of whites is highest.

In the West and in Mexico the principal industry subsidiary to mining is smelting. Very few Mexicans are employed in the Colorado steel works; but in smelters they have been used at times in that State, and are largely employed nearer the frontier. In Mexico some of the largest plants in the world are run entirely by this labor, under American and European supervision. Those employed around the steel works and smelters in Colorado are chiefly engaged in chopping wood and in hauling fuel. One large smelter had, at the time it was visited, no Mexicans on its pay rolls, though some had been employed occasionally in the past. Most of the work is done by contract, at fixed rates per ton of ore, and neither Mexicans nor Japanese can compete with the physically stronger and more robust Italians and Austrians. Japanese tried unloading ore at this smelter, but they could earn only \$1.25 a day, while Austrians working beside them at the same rate per ton were earning \$1.75 and over daily. An employment agent in Denver said he had recently filled an order from the Union Pacific Railroad Company with 40 men from Mexico who were to be used at shoveling coal. That work is about the same as unloading ore, but it is probable that the Mexicans were contented with much lower earnings than would satisfy Japanese and Europeans. A smelter engineer in Arizona said that in that Territory Mexicans were employed mostly in small smelters, performing all the common labor for a wage averaging about \$2 a day. The large custom smelters employ fewer Mexicans. An eight-hour day is worked, because, though the Mexicans can stand hot work, they can not work long hours in the very hot surroundings of a desert smelter. Another informant mentioned smelters where but three white men were employed—an engineer, an assayer, and a superintendent. At the El Paso smelter, where labor from Mexico is very largely used, men were receiving from \$1.10 to \$1.25 a day.

In Mexico itself native smelter labor was said to be very satisfactory after it was trained. At Zacatecas laborers were paid 5 and 6 "reales," amounting to 62½ and 75 cents in local currency, or half that amount in American money. At a very large American smelter in Aguas Calientes men were being paid 62½ cents (silver) a day, which was an increase of 25 per cent over the rate paid in the spring of 1907. Besides this, in order to encourage regular work, if a laborer lost but one workday in any month he was paid the extraordinary premium of 50 cents (silver) a day for that month. These laborers were observed lined up on pay day. Several received sums that would indicate that they had earned the premium. They were fairly sturdy and well fed, in marked contrast to the peons who came in to market from the neighboring "haciendas." Yet the smelter workers are themselves peasants and usually leave work in July to put in their crops. There is a constant labor shortage, though the manager said his best laborers *did not* emigrate.

LUMBERING AND WOODWORKING.

The lumber industry is not important in the section of the United States where Mexican labor is common. At Albuquerque, N. Mex., and at Flagstaff and a few other places in northern Arizona, there are sawmills of some size, supplied with timber from mountain camps at a considerable distance. The American Lumber Company, in Albuquerque, has about 1,000 employees, of whom something over one-half are Spanish-speaking, though mostly American born. A few of the latter are employed in the camps, but most of them are laborers and lumber pilers at the mills, where they earn from \$1.25 to \$2 a day. Immigrant Mexicans were to be distinguished from natives, according to the superintendent, only by being slightly slower and duller. They were not considered ideal laborers, but improved and were willing to learn. Young New Mexicans were employed as bench workers and in operating machines in the box factory, where they earned up to \$2.75 a day. They were reported to work regularly and to give satisfaction.

At Flagstaff, where some 500 men are employed in mill and camp, a large majority of the laborers are New Mexicans, and give satisfaction. About 20 immigrant Mexicans were employed as tie cutters, earning \$2 a day. They are also satisfactory. Mexicans were employed as section men on the logging road.

MISCELLANEOUS OCCUPATIONS.

Some Mexican laborers are located in city colonies, having drifted away from the railroads to engage in various occupations requiring little skill. During the clearing-up operations at San Francisco they worked by the side of Italians and Japanese, sometimes in groups, often scattered among workmen of other nationalities, earning the regulation \$2 a day. Contractors in that city spoke of them as less efficient than Italians, but seemed to place them vaguely in the same class. As the demand for unskilled labor lessens they will probably be replaced entirely by Europeans.

In Los Angeles and vicinity Mexicans of California descent and immigrants are employed as builders' helpers and in minor occupations connected with construction. Parties of these laborers were unpacking and passing tile in a large steel office building. Employers say these workers are mainly from Mexico. They carry hods and drive dirt carts. Through the southern counties of Arizona, in the Gadsden Purchase, there has always been a larger Mexican population than in any other parts of the Territory, and here—in such towns as Phoenix and Tucson—the less skilled building trades are largely controlled by workers of this nationality. As at Laredo and at other Mexican-American frontier towns, the better class of these

workers enter trade unions, or form unions separate from their English-speaking colleagues. In these occupations men earn from \$1.50 to \$2 a day. At Monterey, Mexico, similar laborers, employed on a large ice plant, were paid but 75 cents (silver) a day. An American manager in Monterey said Mexicans worked fairly well under foremen of their own nationality, but that as soon as they had finished what they were told to do they folded their arms and stood still until they received further instructions.

In southern California and in Texas Mexicans do most of the excavating and road building, and are otherwise employed on public works. In the former State a contractor said Mexicans could drive a two-mule scraper, but that he would not trust them with a four-mule scraper. They were paid \$2.25 a day. White laborers were preferred, because they received the same wages, except that the four-mule scraper drivers were paid \$2.50 a day. Asphalt and cement workers, except skilled hands, are paid \$1.25 a day in Los Angeles. Mexicans accept lower wages in the city, because they can be with their families. The pay rolls of one contracting firm, engaged largely in street grading and in other public works, showed that Mexican laborers were paid from 22½ to 30 cents an hour in the vicinity of the city. In San Antonio, Tex., street laborers are paid \$1.25 and \$1.50 a day. They are mostly Mexican immigrants or of Mexican descent. A number of Mexicans are employed by the Government upon its irrigation projects in the southwest. They were said to be receiving the same pay as other laborers—that is, from \$2 to \$2.50 for an eight-hour day—but it was evident from talk with the foremen that where uniform wages are paid, as in this instance, other laborers are much preferred.

In the city colonies of Mexican immigrants, especially in families where children have attended public school, evidences begin to appear of a differentiation of employments, and a rise of the more intelligent to a better class of positions. In Los Angeles immigrant Mexicans are working in slaughterhouses and in meat shops. One boy is foreman of a bed spring factory, receiving \$18 a week. A number of girls work in canneries and at packing crackers. One girl is clerk in a 10-cent store that caters to Mexican trade. A few women are said to be employed in clothing factories, though none were actually found in this occupation. At Austin, Tex., a number of Mexican girls work in a candy factory, where they are said to be more regular and to have better morals than white help.

But Mexican women and children do not usually work in factories in the United States. This is partly because husbands and fathers oppose it, having a peasant prejudice to their women leaving home, and it is partly because these women lack the foundations of industrial training. For the same reason Mexicans do not become domestic

servants. Women of the better laboring class will not leave home, and the immigrant women have so little conception of domestic arrangements in the United States that the task of training them would be too heavy for American housewives. The fairly well-trained servants of Mexico do not emigrate. Even in that country the Chinese are often the only competent and trustworthy servants obtainable by American residents.

CHARACTER, AND COMPARISON WITH OTHER NATIONALITIES.

The Mexican laborer is unambitious, listless, physically weak, irregular, and indolent. On the other hand, he is docile, patient, usually orderly in camp, fairly intelligent under competent supervision, obedient, and cheap. If he were active and ambitious, he would be less tractable and would cost more. His strongest point is his willingness to work for a low wage.

Though Mexicans lack ambition, they are alert in certain ways. In the Colorado beet country they are said to be the first to reach a section where higher wages are paid. "Quick to catch on," was the expression used in characterizing them. A California contractor who had very broad experience with laborers of this nationality said: "They have more intelligence than you think at first. They learn quickly, so that they can do anything in asphalt work." Other employers, both in Mexico and in the United States, noted similar qualities in their laborers; the usual opinion, however, is that they are dull.

Though careless in some ways about money, the Mexicans are very tenacious of their rights. Many disputes arise between them and the farmers employing them on contract in the beet fields. Their suspicions of the fairness of their employer seem easily aroused, and they will quit a job at once if they think they are being cheated. One employer said the Mexicans were always trying "to do" their boss, but this opinion of them is not common. Many of them drink to excess, and lose time after a spree; but they never attack a man placed over them, and they settle their rows among themselves.

Ordinarily their credit is poor, and commissary managers complain of losing much money through Mexican patrons. One store keeper, in a Colorado mining camp, tried the experiment of extending to some of the old settled and more reliable Mexican credit to the amount of \$25 on thirty days' time; but the men slowly fell behind in their accounts and would not pay up, and the experiment was abandoned after six months. This manager said he would trust ten Italians rather than one Mexican. On the other hand when the payment of a debt depends upon a sentimental obligation

or something more than everyday commercial honor, it is generally paid. The assistant general manager of one of the Texas railroads said that he had often loaned a dollar or two to Mexican workmen, who chanced to be stranded in the city, and who had at one time been employed by the road, and that they had never, in a single instance, failed to repay him. In one case a sick man, with a family, on his way back to Mexico borrowed \$2, which was given as an act of charity without expectation of its being returned. But a few weeks or months later, when the man was well again and had returned to work, he stepped into an office of the same railroad several hundred miles off, and handed the money to the agent to be forwarded to the lender. Money lenders in Mexico seem to loan money without much security to intending emigrants—though the actual conditions under which these loans are made could not be discovered. But probably in such cases there is some means of exacting payment in case the emigrant ever returns to his home and family.

Mexicans who have families are said generally to be faithful to their marriage relations. Yet this common testimony of employers and foremen and those dealing most with these laborers was directly contradicted by other men in a position to be equally well informed. The devotion of the Mexican laborer to his family while it is with him, and his desire to return to it in Mexico, are everywhere recognized by Americans. The bishop of an American Catholic diocese, himself a Spaniard, said that as a rule the immigrants sent money to their families left in Mexico and ultimately either returned to them or brought them to the United States; but that cases occurred where a man deserted his family in Mexico and took up with some woman of his class in the United States.

Wherever immigrant Mexican laborers are employed in any numbers in the Southwest postmasters reported that they sent money back to Mexico. Usually the postal orders were for small sums, but often they made a respectable total in the aggregate. From Rocky Ford, Colo., some \$300 a month is thus sent. By reason of the fact that the laborers there work but for a season, most of them doubtless hoard their earnings (such as they do not spend currently) and carry them back with them on their return. Near Gallup, N. Mex., mine and railroad laborers send money home through the post-office, and from northern Arizona, as an educated Mexican who acted as correspondent for illiterate laborers expressed it, "very much of what they don't spend" is thus sent home. The postmistress at Flagstaff, Ariz., said that making out postal orders for Mexicans formed a considerable part of the work of the office. Some officials, though remarking that the total sum was small, noted it as a new item or a growing item in their post-office transactions. The post-office seems to be used by Mexicans for money transfers the more

frequently the greater their distance from the border. Those near the frontier, intending to return to Mexico themselves shortly, probably hold their money to carry home in person. A labor agent, dealing with Mexicans on the frontier and speaking Spanish fluently, said that the returning immigrants often had \$200 gold in their possession, which is a fortune for a workingman in central Mexico. The editor of a Spanish paper in El Paso, himself a former Mexican official, said that many Mexicans returned, especially from the mining country, with this sum. They either spend it in ostentatious display among their neighbors when they get home and return to the United States penniless the following season, or else buy land and stock. The few thrifty ones probably accumulate enough after a few trips to the north to place themselves above the harder and poorer paid kinds of labor in Mexico. Two men of this character were met at Zacatecas; one had a stall in the market.

People familiar with both races say the Mexicans are thriftier than the Negroes. Some of the Pueblo Indian laborers in the Southwest are said to be savers, and this may be an incipient trait in the Indian stock of the Mexican peon. But many employers in the Southwest and in Mexico say that whisky, gambling, and fine clothes absorb most of the Mexican's surplus earnings. Love of display is a very common trait among them and leads to some desirable results, such as the improvement of the homes among New Mexicans, and probably also among the immigrants. But their lavish expenditure seems to be due partly to actual lack of foresight, to forgetfulness, when they have money, that they will ever again be without it. For instance, when the beet harvesters return to El Paso from Colorado, in the fall, they usually have plenty of money, yet not over 30 per cent of the laborers—by actual count kept at one mill—will take the trouble to form parties of ten, and thus secure a party railway rate to the frontier, which would save each laborer several dollars. This is not due to ignorance—for in the particular instance mentioned the mill manager took special trouble to inform them that they could save this money—but apparently to a desire to show off by traveling independently.

Thrift is an important element in the efficiency of labor; for where it is present the laborer usually works more regularly, dissipates less, and is constantly urgent for higher wages. On the other hand, the thriftless laborer is a good man for emergencies—a short job pleases him as well as a long one—and he will work cheap. If the thrift of the Mexicans increases with experience in the United States, though there is not much reason to expect this in any immediately observable degree, they will lose some of the peculiar qualities that make them desirable to employers at present, *but at the same time* acquire others that will add to their value in

a different direction. In the comparisons made by employers and foremen of Mexican with other immigrant labor, the peculiar serviceability of each in a different way was sometimes lost sight of, and the Mexican was judged by the European or Oriental standard or vice versa. This consideration should qualify the following observations:

Different employers in the beet fields, in comparing Mexicans with Japanese, said: "Japanese want better pay, but are quicker and so are as cheap as Mexicans. They get out earlier in the morning." "Our farmers will engage good Mexicans for the following year. They are about equal as workers to Russians and Japanese, but not so intelligent and thrifty. Different nationalities don't work together. Russians and Japanese will observe their contracts better than Mexicans. Mexicans are the best spenders. Russians are desirable savers, because they save to buy farms. The Japanese are bad savers, because they save money to send away." "The Japanese push up wages." (Given as an unfavorable comparison with Mexicans.)

In other employments Mexicans and Japanese were compared as follows: "Old Mexicans are better laborers than Japanese for a large employer because they do not go in gangs, under a head man or agent like the Japanese. [However, in the beet fields they work under "patrones" of their own nationality.] Every Japanese gang is a trade union; they come and quit together. Among the Mexicans one is as good as another, and they will split up and go off singly to different jobs, but don't all quit at once." These observations were repeated in substance by other employers. "Mexicans are cheaper, and in many cases just as good man for man. Japanese now demand at least \$2 a day, about the same as a white man, and they are getting \$2.25 a day at the tunnel." (This was near Trinidad, Colo.) "We prefer to work Mexicans. Mexicans will work with anybody but Japanese. They hate the Japs. We had a mixed gang recently on a stone crusher, when we were very short of labor, the Mexicans feeding and the Japanese in front of the machine. The Mexicans hustled the Japs so hard that they drove them off the job and we had to substitute Mexicans."

Reference has already been made to the fact that for railroad work Mexicans are preferred in many places to Greeks, and even to Italians. The following are memoranda of conversations with employers and foremen familiar with workers of these nationalities: "On railways Mexicans are better than Greeks and Italians, and next to the American 'hobo.'" "New Mexicans are better laborers than Italians or Greeks." "'Cholos' are generally preferred to Greeks or Japanese, and some prefer them to whites." "Railways prefer Mexicans to Japanese and Europeans because they don't combine." "Mexicans are rapidly displacing Greeks and Japanese in railway

work in California." "While the Southern Pacific Railway has Mexicans generally on the sections, near El Paso, where there are some dangerous cuts, it employs Italians." "Mexicans do more work per man [on railways] than Greeks and Italians. They are more willing, and if one is discharged the others will not quit."

A railroad manager has been previously quoted as saying that for emergency work Negroes were better than Mexicans, but that for plodding work the latter were to be preferred. Mexicans are considered better cotton pickers, because they will work the season out, while Negroes stop in the midst of a crop to spend their money. Another employer said: "Negroes are better physically, but less diligent, so Mexicans accomplish as much as they." In southern Texas Mexican labor is everywhere preferred to Negro labor, and is supplanting it upon public works in many places, including some of the larger cities along the Gulf coast and in central Texas. An asphalt contractor in Los Angeles said: "'Cholos' are better workers than Japanese, Chinese, or Negroes."

The comparison with the Indian is generally unfavorable to the Mexican. In the beet country the Indian is considered cheaper and more reliable, if not otherwise better labor. An employer said: "Indian boys from 14 to 20 years old, such as we have had here, will do as much as any laborers, Mexican, Russian, or Japanese." A foreman in Arizona, whose statement could not be verified, said "The Santa Fe paid Navajo Indians \$2 a day when it was paying 'cholos' \$1.25, because Indians did nearly double the work." At the Gallup (N. Mex.) coal mines it was said: "Navajos are better than Mexican immigrants, and the latter are about as good as the Greek and Japanese." The Yaqui Indians also are considered good workers. The governor of Arizona said: "The best labor we get from Mexico is the Yaqui Indians. They are more regular and industrious than the other immigrants from that country. They come up here, fraternize with the Mexicans, and then buy arms and go back home to shoot Mexicans." A mine manager in Mexico said: "Mexican labor in Mexico is not as good as Mexican labor in the United States. The best labor we have here (in Sonora) is the Yaqui Indians."

The general relation of Old Mexican to New Mexican or American born labor of Mexican descent is thus summarized by those familiar with both: "Old Mexicans are increasing (in the Colorado beet fields) relatively to New Mexicans." "From 1900 till 1905 New Mexicans were the chief beet-field workers. Since 1905 Old Mexicans have been supplanting them." "New Mexicans are not employed so much as formerly, because they can get work at home. When they can make them understand (i. e., speak Spanish or have an interpreter), farmers take Old Mexicans in preference to New Mexicans. The latter are pretty smart and lazy." "The New Mexi

cans are at the stage where 'a little learning is a dangerous thing.' " "I have nothing to do with New Mexicans, because they are too smart for me and too vicious." "Texas Mexicans, whom I sometimes employed for ranch (farm) work in Mexico, were better than the natives, because they were more intelligent and knew how to use tools and implements." "New Mexicans make at least double as good coal miners as Old Mexicans." "Section foremen around here prefer New Mexicans to Old Mexicans, because the latter are so slow to understand." "New Mexicans are better than Old Mexicans for lumber yard work, because they are more intelligent." "New Mexicans are better yard men and lumber pilers than white men."

All of these comparisons are understood to apply only to unskilled or semiskilled labor. In any higher class of employment the European would in all cases be preferred.

HOME LIFE AND STANDARD OF LIVING.

The wants of the Mexican peon are hardly more complex than those of the original Indian from whom he is descended. An adobe hut with an earth floor, or even a shelter of branches against the wind, a few pieces of pottery, a serape or a sheepskin to lie on at night and to keep out the keener blasts by day, a modicum of cotton clothing, sandals, and a cheap straw sombrero are a sufficient domestic equipment. Corn, beans, and chilis are the staples of his coarse and simple diet. Equally cheap pulque or its more potent and dangerous distillation, mescal, supplies the stimulant demanded by the crudeness of his food, and card playing affords the diversion needed to break the monotony of his life.

In New Mexico one can observe a more advanced stage in the transformation from this simple and unprogressive condition than is to be seen as yet in Mexico itself. For the same influences are at work upon the Pueblo-Aztec races in both republics, though they have come a little earlier in the north. Thirty years ago the New Mexican villager had no use for money. There was not even an iron hinge in his hut. His pottery was fashioned by his own hands, as was the rude plow with which he scratched a bit of valley land. Clothing was often woven by the family from the wool of his own flocks. Old settlers remember when jury fees were almost the only money countrymen ever saw.

Then came the railroad, along which circulated dollars, as well as other commodities new to the country. The peasant felt the pressure of novel needs about the time he found a market for his labor. Gradually his standard of living rose. Now, except in remote localities, the adobe hut, to which the American-born Mexican wisely clings, usually contains an iron bed, frequently a good cooking range, and not

unusually other furniture. His windows are glazed, cheap prints adorn the walls, and a white spread sets forth the importance of the bed. These adobe dwellings are usually neat and clean, with an orderliness not always to be found in the homes of immigrant laborers from Europe.

The New Mexican no longer is village shy, averse to leaving the neighborhood where he was born and where he can always find shelter and food among his friends. He makes seasonal migrations to distant parts of the west in search of work, often leaving his family behind him to attend to the crop in his absence. A Las Vegas (N. Mex.) merchant received answers to an advertisement in a local Spanish paper from Texas, Arizona, California, Wyoming, and Colorado, so widely had the resident Mexicans scattered to find employment upon the ranches and the railroads. One little village had 70 men absent, mostly in Utah as sheep herders. As a rule the hamlets in the irrigated bottoms do not afford work for wages, so this migration of the Spanish-speaking people within the United States is a migration for money—not the nomadic restlessness of an old Indian stock, but a definite seeking after better economic conditions—after the means to supply new needs.

Although the women stay at home and do not themselves become earners, they appear to be the spenders, or the ones for whom money is first and chiefly spent. A Mexican laborer will dress his wife and children expensively while he wears rags himself. Social emulation or some kindred sentiment seems to account for the slow but steady improvement in the New Mexican home. In fact, showy furniture frequently stands as a symbol of means rather than of use. A well draped bed will occupy a prominent place in an apartment where the family sleeps on the floor. And these new standards of style and ostensible comfort are set by the women rather than by the men.

The immigrant from Old Mexico is passing along the same road as his brother north of the line, only he is a little behind. He dons American working clothes when he crosses the border; and if he goes into a boarding camp becomes accustomed to a dietary scale far above that to which he was accustomed at home. It is doubtful if the fresh-meat-eating laborer ever returns willingly to a vegetable diet. Some Mexicans in Texas seem to appreciate the United States chiefly as a place where there is more to eat than in Mexico. In migrating to the United States the Mexican loosens the home tie more than does the New Mexican in his migrations; for he goes to a greater distance and to a different country. Therefore he breaks away more completely from the system of communal dependence common to the Spanish-speaking peasantry of both countries, where the lazy man and the man out of work live off their relatives and neighbors, so that the sense of individual economic responsibility is never developed. The com-

munal standard of living is apt to be low, because emulative influences are absent. In the United States, for instance, the standard of living constantly rises, partly because every man wants to excel or at least equal his neighbor in home surroundings. And other things being the same, the standard of living rises most rapidly where there is the most social contact, as in towns and in cities, provided each family unit is upon an independent basis. But where the man who increases his family expenditure, at once, by this evidence of prosperity, becomes the prey of all his poorer relatives and connections, and even neighbors, who swarm in and eat up his surplus substance, obviously there can be little progress, though there is a comfortable condition of equality among all members of the community. This was the condition of the Mexican villagers. Custom made the more industrious and efficient the victims of the lazy and inefficient. There was no incentive to accumulate. Society was reduced to a subsistence basis.

With emigration the communal unit is broken up, and there is an opportunity to accumulate and enjoy the fruit of this accumulation. The conditions under which the Mexican laborer in the United States works usually prevent his having a home; so he does not buy furniture. But he spends liberally for clothing, and if his family accompanies him, provides well for his wife and children. He thus accustoms himself to things he has not heretofore enjoyed, and carries the taste for these things back to Mexico. New demands for American manufactures grow up in Mexico where the returned emigrant has settled, and trade follows in the wake of retreating labor.

It is the general opinion that Mexican immigrants eat better and more varied food in the United States than at home, but their diet in the United States is so different under different conditions that a safe conclusion can not be drawn from observing isolated cases. A person who had lived among Mexicans in Mexico and in Colorado said: "Both immigrants and American-born Mexicans eat chilis and beans and jerk their meat. But in Old Mexico people have a greater variety of food, because it is so easily procured." This applies especially to fruits and to vegetables, which are fairly abundant and varied, though of poor quality, at least in the markets of the larger provincial towns of Mexico. At a Colorado coal mine store a typical bill of a New Mexican was 4 sacks of flour, Mexican beans, canned goods (tomatoes, corn, and peas), a 15-pound bucket of jelly, 20 pounds of lard, chilis, corn meal, and about \$3 worth of fresh boiling beef and bacon. This represents about the best dietary scale of Spanish-speaking laborers, where they board themselves. Some items are omitted or were obtained elsewhere. Compared with this is the following weekly ration of a "family" (^a) on a plantation in the extreme southern portion of Mexico, where wages are high for

^aA man, wife, and children too young to work.

the Republic and labor scarce: $1\frac{1}{2}$ kilos (3.3 pounds) beans, 1 kilo (2.2 pounds) rice, 600 grams (1.3 pounds) coffee, $\frac{1}{2}$ kilo (1.1 pounds) salt, 1 kilo (2.2 pounds) brown sugar, 3 kilos (6.6 pounds) meat, one-half bottle lard, one-half bottle kerosene. At Flagstaff, Ariz., a Mexican said that men boarding themselves paid \$4 or \$5 a month for a house, usually occupied by two or more, and bought flour, beans, sugar, and coffee, but no meat and very little of other provisions. At a railway store in California immigrant Mexicans were buying bacon, ham, flour, beans, and some canned goods. Where they are boarded, as remarked elsewhere, they eat a great deal of fresh meat. One contractor said of his Old Mexicans: "They gorge themselves on meat."

A merchant dealing with both New Mexicans and immigrant Mexicans said: "Mexicans born in this country are usually neat about their homes and buy things to make them comfortable. They will own a \$35 bed, though they sleep out of doors in summer. I sell on an average one good kitchen range a month to Mexicans in this community of some 500 people. They have crayon enlargements in their houses. They don't use much table linen; they use oilcloth. They like gaudily colored table covers and pottery ornaments." Old Mexicans buy a cheaper quality of goods and in smaller quantities than New Mexicans; and all Mexicans, though better buyers, use cheaper articles than Italians, and buy them with less discrimination. Italians will pay 40 cents a pound for Edam cheese, and correspondingly higher prices for the best imported olive oil and macaroni, if the articles are really as represented, but Mexicans buy better clothing, especially for their women and children. Young Americans of Mexican descent buy tailor-made clothing, but older New Mexicans and immigrants will seldom pay more than \$10 for a ready-made suit. The wives of Mexican miners and laborers will buy more expensive hats and shoes than American women of a much better position in life. Sewing machines have found their way into Mexican homes throughout the Southwest. The returning immigrant often invests a considerable share of his savings in attire for himself and family before reaching home.

EMIGRATION AND LABOR EFFICIENCY.

The new sense of self-dependence created by migration is said to be both a moral and an industrial stimulus to the Mexican, and does not leave him even when he returns to his own country. Several employers in Mexico expressed, independently of each other, the opinion that the laborer who had been to the United States was a better worker than the one who had never left home. Some thought that the old-time peon, who had never left his village, was more tractable and could be driven more; but that the laborer educated by

travel across the border had more initiative and intelligence, and more need for money, so that his real efficiency was higher, though his habits were more irregular. The testimony of employers who had had an opportunity to observe labor in both countries, was unanimous that Mexicans worked better in the United States than in Mexico; that they learned to direct their work more intelligently, worked more days a month, and worked with more vigor. This was attributed partly to American superintendence, partly to higher wages and better food, and partly to the fact that the Mexican came to the United States with the definite object of saving money to carry back home, and gave his attention to that one thing.

One railway manager qualified his opinion of the influence of emigration upon the labor efficiency of Mexicans as follows: "Their efficiency is not increased by higher wages. They do not do so much as five years ago. But those who have been in the United States are in some respects cheaper, because they need less supervision." Another employer, with more men in his service, summed up the matter by saying of laborers who had come back to Mexico to work, after being in the United States: "We get more service for more wages."

The general educational effect of travel upon the Mexican peons is probably wholesome. They learn to do new kinds of work, under new conditions. They see different ways of living and acquire new wants. They begin to have a vague ambition for social and economic betterment. It is so usual in Mexico to speak of the Indian laborer as absolutely without ambition, that to attribute to him this quality marks a man in common opinion as a theorist. But the very movement of this labor northward is a proof of ambition. These workers are not forced from their homes—they leave against opposition of their old employers, those whom they have been taught to respect and obey. Sometimes they leave against the will of the priest as well as of the "patron;" for there is often solidarity of interest between the two in rural parishes. The attraction that overcomes this opposition is therefore a strong one—and it is none other than the motive that sets the European immigrant upon his way across the sea—to earn more money and to live better. Some educated Mexicans say that the laborers of their country are beginning to be restless under the old caste inferiority, to which they have submitted from before the Conquest; that doctrines of equality, but half comprehended, are awakening new ideas among the peasantry, and that the movement among them to the north is partly a groping for an opportunity to rise out of their hereditary condition. A mere grain of truth may be at the bottom of this opinion, but it is mostly the idealism of educated social optimists, read into the extremely simple and practical mind of the Indian, who aspires mostly for very concrete things. The peon immigrant has an ambition; but it is limited to the few dollars which he

can carry back to his family and often dissipate in gorgeous expenditure. Still, this ambition is better than none at all; and it results in labor, which is discipline, and in saving, which is a still higher and less familiar discipline to these people. Ultimately it brings about a higher standard of living, which is the basis for social aspirations, such as overhopeful Mexicans already feign to discover among their peon classes.

This primary desire for money, even if the money is to be spent unwisely, makes the Mexican a better worker. His efficiency as a laborer is rising slowly to the demands of the gold-paying employer in the United States. As he acquires more varied experience, his initiative and adaptability increase. When it is considered that he is the product of unnumbered generations of training in a single occupation—in the simplest of all labor, primitive and unprogressive agriculture—it is not to be expected that he should respond readily to all the varied demands of modern industry. The important point is that he improves, “catches on,” as the foremen say.

SOCIAL CONDITION OF MEXICANS IN THE UNITED STATES.

The Spanish-speaking population of the United States has not increased rapidly, and in localities where it is brought into close competition with other races appears to be decreasing. But the population of Mexico has more than doubled within one hundred years, without appreciable immigration. The number of inhabitants in the Republic at present probably exceeds 15,000,000. The race has not been as prolific in Mexico as either the white or the black race in the United States. This has probably been due not so much to a lower birth rate as to a higher death rate, caused by poorer sanitary conditions and less nourishing food. Mexicans are fatalists in case of epidemics, exposing themselves to contagion without regard to consequences. They are said to be susceptible to tuberculosis. While they do not impress one as able to resist the stress of modern urban life, they literally swarm in the crowded, insanitary courts of the City of Mexico.

Physicians familiar with Mexican immigrants in the United States usually speak of them as poorly nourished, with less vigor and resistance to disease than Europeans, Negroes, or Americans. A mine physician said: “Mexicans in this country have fairly large families but the population resident here increases but slowly, if at all, on account of the low resistance powers of the race.” Parasitic anæmia or the “hook worm,” is not the cause of this, apparently, since the disease is unknown in many parts of Mexico and not common among the immigrants. There are a few cases in coal mines near the border all popularly supposed to be brought from a single mining district of Mexico, and to be due to the habit of earth-eating said to prevail

in that locality. Speaking of Mexican communities in Colorado, a person familiar with them said: "New Mexicans have large families, but seem to be dying out; and the Mexican population of Pueblo and Trinidad appears to be decreasing, and would decrease more were it not for immigration from the south." There are no statistics to show whether or not this surmise is correct. The American population of these western towns and cities is growing so rapidly, and the country is filling up so fast with European immigrants, that the so-called "Mexican" population, while really growing, may by contrast appear to be lessening; also, the New Mexicans are more widely distributed than formerly, entering new occupations and old occupations in a country that was entirely without settlers a few years ago. Therefore a local decrease might accompany a general increase throughout the State, or in neighboring States. At one place in Colorado an election official said that the poll books showed a decreasing Mexican population. But such evidence has no value for general purposes. In Los Angeles immigrant Mexicans are said to be more robust than natives of Mexican descent, and to be displacing them. The impression of Americans here and in the Territories accords with the opinions given from Colorado, that the American-born Mexicans are a decadent race, yielding before the physically more vigorous immigrants from Europe and the East. One cause given for the decline of the New Mexican population is inbreeding—intermarriage for generations among the few families of a village, said to result in stunting and deformities and in a general decrease of virility.

Los Angeles has probably the largest urban colony of immigrant Mexicans in the United States. The total Spanish-speaking population of the city is said not to be increasing, but natives are being supplanted by immigrants, so that in a district in the old Spanish town, where there are still many hundreds of Mexicans, a social settlement worker knew of but four families that were born in this country. These people live in courts and in alleys, into which open one-story huts having one or two rooms, built of wood or brick and adobe, weatherproof, but ill-lighted, unclean, unwholesome, and hardly to be tolerated by the poorest except in the sunny and warm California climate. Not long ago a physician found 23 Mexicans sleeping in one small room in this district, and another was added to the number before he left. These courts harbor not only Mexicans, but Negroes and Slavs as well. Families of different race and nationality occupy adjoining tenements. There is nothing to distinguish the house of one from the other, except that a box of flowers occasionally is seen in front of the Mexican quarters. Single-room huts rent for \$3 a month, and this rate per room is charged for larger tenements. On account of a recent tenement house ordinance in Los

Angeles the condition of these courts had improved somewhat when they were visited, in the autumn of 1907. Outside water taps and closets—apparently serving an entire court—with sewer connection had been installed.

Austin and San Antonio, Tex., have large colonies of immigrant Mexicans, which are undoubtedly growing rapidly, and not, like that of Los Angeles, about stationary in total population. But housing conditions are better, partly because land values are lower and there is less necessity for crowding.

Los Angeles is a native American city, settled mostly by people from the Eastern States. Of a total public school enrollment of 42,260 but 2,046 are foreign-born. Of these foreign-born children, 938 are natives of Mexico. The last census statistics are already too old to show the relative numbers of Mexicans and other foreigners in the city, but these figures are thought by the school authorities to indicate that the school attendance of Mexicans is relatively as large as that of other nationalities.

The Mexicans of San Antonio show an interest in the public schools and the attendance is rapidly increasing. In fact the authorities find it difficult to provide adequate accommodations in the Mexican quarter of the city. In one district, where seven-eighths of the enrollment is Mexican, within five years an eight-room building has been increased to sixteen rooms and a seven-room building built in a different part of the district. Parents show great interest in the schools and a Mexican merchant presented a bell to one of the buildings at the time of its completion. There is usually a Mexican member—an American-born citizen of Mexican descent—on the school board to represent the Spanish-speaking people of the city. All instruction is in English and the children are taught to salute the flag. American parents send their children to the same schools with Mexican children. The attitude of the people of the city toward Mexican children in the schools was thus explicitly described by an educational officer: "The citizens of San Antonio want the Mexican children to have the same advantages as their own in the public schools for four reasons: (1) From humanitarian considerations they want to raise the Mexican population and give it a better chance in life; (2) from political considerations they want to satisfy the Mexican voters; (3) many business men see a practical advantage in having their children—more especially boys—associate with Mexican children in school and learn their character, because they will have to deal with them in after life; (4) we all want to keep the Mexican population contented, so more Mexican labor will immigrate to this country." In this city the testimony was that Mexican children were well behaved in school, and that they were bright in the primary grades and in the manual training departments, but that they entered later

and left earlier than American children. It was pointed out that the adult Mexican population of Texas and of the Territories had never enjoyed public school advantages, and so the present generation of children grows up in ignorant homes. But this will not be true of the next generation.

In Los Angeles few Mexican pupils remain longer than through the second grade, which gives them the mere elements of reading and writing; but it takes them longer than American children to advance this far, because they have to learn English. When placed in an ungraded room as an experiment some Mexican children made more progress. Of course there are exceptional cases where children pass beyond the primary grades; and three Mexicans of a better class were attending the polytechnic high school. The children are reported to be tractable and to like going to school. They give no trouble, and their only difficulty comes from the aggressions of a rougher class of white pupils. The girls are said to be moral—better safeguarded either by principle or by home discipline than the lower class of white girls. Mexican children are rather studious by nature, but those in Los Angeles are hampered by poor home surroundings. Partly from lack of home conveniences for washing, the children are apt to come to school dirty. After school baths were installed in one building, there was much improvement in this respect. But Mexicans are prejudiced against water, believing that washing causes fever. After their children have been vaccinated Mexican parents will keep them away from water for weeks, though the parents have superstitious faith in the vaccination itself, as a sort of mystic rite. But it is easier for school authorities to enforce some sort of home hygiene for these pupils, because the Mexicans have much respect for authority and make an attempt to follow official directions.

Irregular attendance retards the progress of Mexican pupils. Boys are sent on errands, and usually have to provide the family with fuel, which they pick up in the streets and around new buildings. Children of both sexes are often absent on feast days and on holy days. Though children are sent to church on these occasions, Mexican parents usually patronize public rather than parochial schools. This does not seem to be from motives of economy; for they make sacrifices to provide their children with text-books, and will not appeal to the authorities for free books, though these can be obtained where parents are themselves unable to provide them. In this matter Mexicans are in strong contrast with Italians, who try to get text-books from the school board after they are well-to-do and taxpayers on city property. A Mexican family almost in distress prefers not to make this appeal, but manages in some way to obtain money for necessary school expenses.

Mexicans excel in design and in the manual arts. At the College Settlement, a social betterment center in a quarter of Los Angeles having many Mexican immigrants, children of that nationality show special skill in tile modeling and in carving blocks of original design for printing patterns on cloth. Teachers say their work is equal to or better than that of pupils in the technical high school.

Mexican boys are not fond of athletic sports, and as a race the people are not aggressive. At a rummage sale the Mexicans stood back while Italians and other Europeans crowded forward and got all the good bargains. Likewise, when a colony of Italians settles in a quarter formerly occupied by Mexicans, the latter quietly move out to a less crowded locality. Sometimes they buy cheap suburban lots on installments, and move their shacks to these places, or buy second-hand building materials where old tenements—frequently condemned—are being torn down, from which they erect rude shelters for their families. In this, as in other ways, the Mexican shows the retiring traits of the Indian and the countryman, even after several years' experience with city life.

Social workers with experience among different nationalities, in Los Angeles and elsewhere, think that there is less illiteracy among the Mexican immigrants than among the Slavs. Superficial observers commonly assume that a knowledge of reading and of writing is rare among the former as a knowledge of English. This is not entirely true. Several pay rolls of unskilled Mexican laborers were seen, which indicated that from one-half to three-fourths of the workers could at least sign their names. A Spanish-speaking American labor agent in El Paso estimated that 10 per cent of the immigrants could read and write. One old laborer in Los Angeles, who was signing a pay roll, said his children had taught him to write adding in Spanish: "I'll never go back to Old Mexico, because I have five children in the public school." Wherever there are large Mexican labor camps postmasters report that a large number of letters are sent to Mexico. Though many of these are written to some local "patron," or headman, yet this is by no means always the case. In several instances immigrants passing through El Paso showed letters from a brother or other relative in the United States. A number of Mexican men attend night school in Los Angeles.

The Mexicans are sympathetic—generous not only to their own people, but to those of another nationality in time of trouble. For this reason they seldom become dependent upon public charity. Americans in parts of the country where Mexicans are numerous frequently observed: "There are no Mexican tramps." By this it is not meant that there are not many Mexican laborers traveling on foot from place to place, but these laborers are so in fact as well as name and seldom apply for assistance except among their own people.

the time of the San Francisco earthquake, according to settlement workers in Los Angeles, when there was a call for help in making clothing and furnishing other supplies, the Mexican mothers turned out, and in their small way gave more assistance than any other foreigners.

The professional criminal element among Mexicans in the United States appears to be small, but there is a considerable number of occasional criminals. Most arrests are caused by cheap whisky or mescal. The Mexican is not often a sot, but many Mexicans are inclined to short, sharp, periodic sprees. Along the frontier resides a number of parasitic Mexicans, who live off the vices of their more industrious countrymen and the lower class of Americans. This is a disagreeable and at times a dangerous element. Gambling is its main profession. There are so-called "American" towns within the frontier district where public opinion is as decidedly against Mexican immigration as it is against Negro immigration in some white sections of the South. Where there is this opposition to the Mexican, it is usually to the Mexican who becomes a resident rather than to the transient laborer. And it is this resident class that provides most of the criminals and semicriminals.

In 1906 the penal and charitable institutions of Arizona and of New Mexico, not counting county institutions, contained 773 American citizens, 382 Mexican citizens, and 456 persons of other foreign nationalities, while the nationalities of 19 were unknown. In county jails visited a large per cent of the inmates were obviously of Mexican blood, on whichever side the border they might have been born. But in these localities the same predominance of Mexican blood was also obvious outside the jail.

SENTIMENT AND RACE PREJUDICE.

Organized labor, and white workers in general, do not appear to be opposed to Mexicans in the same way that they are to Orientals. There are two main reasons for this; the Mexican immigrant does not compete in occupations which the white worker greatly cares to enter, and he is regarded as something of an American, with more moral right in this country than the Asiatic. One labor editor said: "The Mexicans don't trouble us much, and are not likely to do so unless we have bad times. Then it may be a bad thing to have the country filled up with cheap labor. They can't do white man's work. Besides they were born in this country, or pretty nearly in this country, and have more right to be here than these Japanese and Italians and Greeks." One candid American mechanic said: "They will never pay a Mexican what he's really worth compared with a white man. I know a Mexican that's the best blacksmith I ever knew. He has made some of the best tools I ever used. But they pay him \$1.50 a

day as a helper, working under an American blacksmith who gets \$7 a day." Another workingman said: "The Mexican is all right in his place, and he's not so likely to get out of his place as a Japanese or a Negro." The fact that the Mexican is not socially or industrially ambitious, like European and Asiatic immigrants, counts very much in his favor with white workers.

The race sentiment of Americans toward Mexicans is, like most race sentiment, peculiar and illogical. There is nothing of that stern race consciousness that marks the attitude of the white man in the South toward the Negro. There is more of the tolerance with which Americans have traditionally regarded the Indians. Yet a Mexican can fraternize with Negroes and not lose caste, as would a white man. Negro foremen are employed in Mexican coal mines, directing gangs of Mexican miners. The American Negro considers himself above the Mexican, and yet the latter receives more social recognition from the white man. Perhaps the existence of an upper class in Mexico, distinct from the laboring class and equal socially to Americans, gives even the laborer a better standing in this country. Mexican immigrants ride in white cars in Texas, and might eat at the same table with Americans. Practically there is little social intermingling. Intermarriage is rare, and when it occurs seems to be a subject for apology. This is true even of Europeans. A person familiar with a large mining district, where hundreds of Italians and Mexicans were employed, knew of but a single case where an Italian had married a Mexican. The Mexican does not put himself forward, or seek white society. He observes his own canons of reserve and dignity, which are never offensive.

In Colorado an American said: "There is less race prejudice against an Indian than against a Mexican, and less against a Mexican than against a Negro." This about expresses the situation in the West; but in Texas, where people are more familiar with Mexicans, and a larger proportion of them are residents of the better class, the Mexicans as a body socially far outrank Indians or Negroes. The gradation, from those who associate on terms of equality with Americans to the peon, is so gradual that a race distinction as such hardly exists; and though the preponderant Indian blood of most recent Mexican immigrants can not be dismissed from a consideration of the effect of this immigration, it has not as yet created a race question along our southern frontier.

The economic race contest is not so much between the Mexican and the Negro or the American as between the Mexican and the other nationalities mentioned previously—Italians, Greeks, and Japanese. Japanese compete with Negroes on the Pacific coast in what are called "easy jobs," such as hotel waiters and porters, bootblacks, and servants of different kinds. Mexicans have never entered these

occupations, though a few are employed as coachmen. In Mexico it has sometimes been necessary to place Chinese laborers together in a mine entirely separate from the Mexicans.

The attitude of Americans of Mexican descent toward immigrants from Mexico seems to be friendly, except where there is direct competition between the two. In Colorado the former regard the latter as interlopers, though they are not actively hostile to them. New Mexicans complain that the immigrants can work cheaper, because they have no families with them. The New Mexican is different from the Old Mexican, in that he sometimes objects to working with Negroes. Another evidence of nascent social consciousness is that he considers himself very much above the immigrant, and does not want to be confounded with him in public opinion. This sentiment is observed in parts of New Mexico where labor is so scarce that there is no opposition by the natives to immigration from Mexico on economic grounds. In Texas, where there are labor organizations among resident Mexicans, the latter oppose an inflow of immigrants likely to lower wages; and in some cases they have lodged complaints of alleged violations of the contract labor law.

SOME EFFECTS IN MEXICO.

Incidentally the effects upon Old Mexico of Mexican emigration to the United States have been referred to in treating of the influence of emigration upon the laborer. But there remain to be pointed out some of the economic and social effects felt by that country as a whole.

Labor is scarce in Mexico; that is, not adequate to the demand of the country's expanding industries. In spite of the cry for more labor in the United States in the summer of 1907, Mexican immigrants were being shipped back to the State of Sonora from El Paso at a wage equal to that they would be paid on American railways near the frontier. The Mexican newspapers are filled with discussions of the labor shortage, and contain many dispatches telling of crops unharvested or railways and public works delayed because of the impossibility of securing workers. These reports are from all parts of the country. The authorities in some of the central States at times suspend entirely the right to hire laborers within their boundaries for work in other States. This was done in Querétaro in July, 1907, and in October of the same year a similar provision was revoked in Zacatecas.

Therefore the emigration to the United States, though it withdraws from the labor market but a small fraction of the total supply, may have a decided influence upon wages. Not only does it make the existing shortage more acute, but the influence of returning emigrants is to educate local labor to higher wage demands. An official of a large employing corporation in Mexico, himself an American, said: "The

effect of emigration will finally be to make our wages as high as those in the north. To retain labor so far as we can in the southern portion of the Republic we and other employers of labor have had to advance wages considerably."

This rise in wages exceeds in ratio, to the rate previously paid, the rise of wages in the United States. The increase is not to be attributed solely to emigration. It is perhaps as largely due to mining development, to railway building, and to other local demands for workers. But the movement of labor northward is more dramatic and obvious than its silent absorption by domestic industries, and is therefore given relatively more importance in common opinion.

Within a few years railways have raised the rate of pay for unskilled labor from 50 cents to 62½ cents (Mexican) in the vicinities of the City of Mexico, Guadalajara, and Aguas Calientes. These are the cheap labor districts of the Republic. A railroad contractor, who was employing several thousand men on construction work on the west coast, said that he was paying common labor as high as \$1.25 (Mexican) a day, where he had been paying 50 cents (Mexican) five years ago. This contractor has imported Asiatics, but prefers Mexicans when they can be obtained.

Wages are much lower away from the railways, and even upon railways not affording direct connection with the north. While skilled miners earn \$1.50 (Mexican) a day, according to their employers, around Zacatecas, they are paid but 75 cents (Mexican) a day 60 miles distant in the interior. As recently as 1906, upon the east coast north of Tampico, in country not yet connected with Monterey and Laredo, laborers employed in railway construction were paid but 40 and 50 cents (20 and 25 cents United States currency) a day. This was about the plantation rate. Immigrants at El Paso often reported that their wages on the hacienda where they had been employed were "dos reales" (equivalent to 12½ cents in American money) a day, and this sum was often received in supplies. Five years ago farm laborers in the vicinity of Monterey, within a few hours' ride from the Texas border, were paid a conventional rate of 40 cents (silver) a day. In 1907, even as far south as Aguas Calientes, at least one large estate owner was reported to be paying 60 cents (silver) a day for farm hands. This wage was probably exceptional, since it was paid by an unusually progressive proprietor, who had grappled with the problem of labor scarcity in an intelligent way and was experimenting with steam plows and other modern agricultural implements. As a rule farm wages rise more slowly than those of unskilled labor in other industries, and this rule applies with the more force in Mexico on account of peonage and the patriarchal organization of agriculture. In fact, the "hacendados" are reported to make little effort to keep their labor in face of higher wages elsewhere.

except by preventing open recruiting in their vicinity. Wages are so much a matter of custom in Mexico that to change them is like amending the constitution in another country. So cases are cited where large landowners, formerly rated very wealthy and accustomed to a liberal scale of living, are on the verge of bankruptcy because the labor has drifted away, rendering their estates unproductive. Entire villages have migrated to other parts of Mexico, where employment has been found in the mines or on the railways, or have gone to the United States. This conventional wage rate is uneconomic and unjust to the more industrious workers. An American agricultural expert, who was employed to manage a large "hacienda" in Mexico during the introduction of citrus fruits as a main crop, said that when he first went on the place every workman was credited with 40 cents (20 cents United States currency) a day, without regard for his efficiency and industry. Some men were good workers, others simply loafed and talked, but each received the same pay at the end of the month. When the new manager began to discriminate in wages and discharge the loafers, it was at first considered a cruel and unjust innovation, but ultimately the men who really cared to work saw the advantage of the new system, and much more was accomplished by a few well-paid laborers than had formerly been accomplished by many half-paid "peones."

Ultimately, perhaps, labor scarcity will force most large proprietors to adopt the same system. Many intelligent Mexicans consider that before this happens the large estates will be broken up and the peon become a true peasant proprietor. This is regarded by many liberal-minded people as a most desirable outcome of present conditions, and there are some who welcome the emigration to the United States for this reason.

The rise of wages and lack of labor in Mexico are being met by other measures in which the United States is not unconcerned. Large employers, especially mining companies and railways—but also planters, more particularly in the tropical portions of the Republic—are importing many thousand Chinese and Japanese. There is no effective political opposition to this immigration, and very little criticism of the policy of importing alien labor of another race upon civic or upon social grounds. If the Indian has any sentiment with regard to the question it is unexpressed. Wages are traditionally low in Mexico, and in the face of a large immigration they would probably resume their former level, thus checking the inflow of foreign labor. Other things being equal, native labor is preferred to Asiatic. At the rubber growers' convention in Mexico, in October, 1907, the discussion brought out clearly that Mexican labor was better than Japanese in this industry. After several years' experience, native mining labor is given the preference to imported. A large railway contractor expressed the same preference after

equally extensive experience. All this means, in a word, that Mexican labor is cheaper than Asiatic when it can be obtained. Meantime, if the economic status of the native laborer improves, there will probably come an increase in his intelligence and in his political force, and with it, awakened opposition and power to resist the influx of Orientals.

No very definite effects of their experience in the United States, upon the social ideals of the laborers returning to Mexico, is as yet reported. There are some labor organizations in the latter country, but mostly among a class of workers that does not emigrate. The Government supervises the relations of employers and employees somewhat strictly. During the cotton operatives' strike in 1906, and the more recent mining labor difficulties at Cananea, near the American frontier in northern Sonora, the authorities intervened so sternly as to repress disorder and force the men back to work at the old terms. This intervention was partly to prevent an opportunity for disaffected political elements to take advantage of the crisis. But when there was talk of a strike on one of the large railway systems, the authorities, after an investigation, decided that some of the demands of the employees were just and directed that they be granted. The essence of these later difficulties has been the demand of Mexicans that they be paid the same wage as Americans for the same work; and the Government supports this contention when convinced that Mexican labor does render the same service; but as decidedly rejects it when equal efficiency is not shown. The Mexican laborer who emigrates to the United States usually comes from the agricultural classes, ignorant of the labor movement, and his work in this country does not bring him in contact with trade unionism except at the mines, where he finds it either arrayed against him or apathetic to his interests. In any case, no effort has been made by American unionists to organize the Mexicans, or to dispose them favorably toward labor organizations. An exception to this attitude is found when American-born Mexicans are numerous in any trade. At Tuscon, Ariz., the builders' helpers, mostly or entirely Spanish speaking, have a union, and at Laredo, Tex., there is a labor paper published in Spanish, and an active branch of the American Federation of Labor largely composed of Mexican or Mexican-American members. During the coal strike in Colorado in 1903-4, when Mexicans were employed as strike breakers, they would join the union when urged, and remained faithful to the labor cause so long as they were paid strike benefits. A small income without work seems much better to these people than a large income with work. Yet nearly all the Mexicans engaged in this disturbance, either as union men or as strike breakers, were American born.

If labor organization in Mexico is influenced by returning emigrants to the United States it seems likely that the emigrants will have

lived their new ideas indirectly through these Spanish-speaking
ns of workers on the American side of the border rather than
tly from the organizers and leaders of the labor movement in
ico.

nong the Latin-American people more than among Americans
: agitation is apt to end in political agitation and, as already sug-
d, the Government of Mexico, with this fear in view, keeps a close
h over the incipient enterprises of labor reformers. Conditions
not favorable in Mexico to a socialist propaganda. Mexican
has not yet evolved to that peculiar kind of class consciousness
makes the mind receptive to socialist theories. The masses are
y, perhaps, to adopt any programme handed out to them by a
ous and ready spoken leader; but they would adopt it on au-
ty, not as a personal conviction, and desert it with perfect un-
rn as soon as the leader had fallen.

erefore, because their contact with American workers is purely
f locality, not of intellectual sympathy, and because they are as
people with but rudimentary social experience, the emigrants
Mexico do not carry home with them a burden of new thoughts
ideals likely to revolutionize the intellectual condition of native
ers.

time, of course, if this current of labor continues to flow to and
etween Mexico and the United States social ideas gathered from
strial surroundings in the latter country will begin to permeate
hought of the working classes south of the border. But this
ss promises at present to be so slow as to be negligible in a study
isting conditions or of those of the immediate future.

other respects the laborer returns not uninfluenced by his sojourn
other land. His knowledge of ideal things may remain the
, but his knowledge of concrete things has expanded. He has
ne accustomed to better—at least different—clothing, more varied
a generally wider material horizon. His consumption has
n. And by his newly acquired wants and his example he is in-
ing the consuming impulse of the whole Mexican laboring class.
somewhat to the advantage of Americans that the things he has
ed to want are mostly the product of our own country and that
ncrement to the market is in the demand for American goods.
co, too, is benefited by this increased consumption, for it is paid
y additional labor, which develops the country. There is at
a shadow of ground for the contention of some optimistic resi-
of Mexico that the labor supply of the country is not really
ed by emigration to the United States, because the new needs of
eturning laborers make all laborers work the harder. Even if
compensating outcome is not so immediate as these people hold
ill probably come ultimately in the greater aggregate laboring
r of the *nation*.

The relation of the Mexican laborer to his employer has been modified by many new conditions, of which the emigration to the north is perhaps the most typical. The workingman is no longer so dependent on his "patron" as formerly. He changes employers more frequently and freely. He expects cash wages and offers a sort of passive resistance to many forms of industrial oppression to which he used to submit without question. A coal mining company employing several thousand men formerly paid monthly, issuing in the interval scrip to the miners, which was accepted at par for goods, but discounted 40 and 50 per cent by speculators for cash. Many of these speculators worked in collusion with higher employees of the company. At this time the men were receiving 55 cents (27½ cents United States currency) per ton for getting out coal. A shrewd Yankee contracted part of the mine for a long period, and began to pay 45 cents (22½ cents United States currency) a ton to his miners, but gave them their earnings in cash every evening. Soon he had several hundred of the best workers of the company, recruited by it at great expense, in his part of the mine; and his success and competition forced the company to adopt the same plan of payment. With cash wages the men bought their supplies on better terms, and in general they were more independent; but the company permitted no competing store upon its property. A rival company went one step further and permitted competing stores to locate in the vicinity of its mines. Now it has abundant labor at the expense of its competitor. As an English mine manager in a different part of the country said: "The Mexicans are learning to dislike to be shepherded."

Not only is the Mexican learning to look upon his relations with his employer as a matter of contract rather than of dependence, and therefore changing employers more freely, but also he is learning to change his occupation. The differentiation in occupations accompanying the industrial development of the country—and made still greater by the wider sphere of employment opened to the Mexican laborer by emigration—is giving the worker greater diversity of training, and thereby making him more intelligent. Managers of mines, of smelters, and of railways in Mexico mentioned the improvement of their labor, due to increased experience and training, within the past few years; and it was generally thought that emigration was an added influence in the same direction. Even some of those who most deplored the temporary loss of labor due to this cause congratulated themselves that these migrating workers returned better qualified for work than they were when they left.

Upon the whole, the balance of advantage or disadvantage to Mexico from this migration of its labor northward is not at once clear. There can be seen certain specific benefits for the individual laborer, and at longer range benefits for the entire laboring class of the coun-

try, from the higher wages and added experience the emigrants get in the United States. Returning emigrants bring back some money with them. On the other hand, the labor shortage in their home country leads to the importation of Asiatics—which might occur in any case—and undoubtedly makes more difficult new industrial undertakings, while it embarrasses old ones. Still the volume of this emigration as yet is not large enough to be of vital importance, even to a thinly populated country like Mexico. Should this labor migration increase, as recent indications promise, it will be a serious matter for that country to consider.

SOME EFFECTS IN THE UNITED STATES.

So long as the Mexican immigration is transient it is not likely to have much influence upon the United States, except as it regulates the labor market in a limited number of occupations and probably within a restricted area; for transient labor is not likely to be largely employed beyond a certain radius from El Paso and the Rio Grande, or enter lines of employment in which it competes with citizen labor. But the Mexicans are making their homes in the United States in increasing numbers and, being assimilated by the Spanish-speaking population of the Southwest, are forming the civic substratum of our border States. The proportion of the immigrants who ultimately make up a permanent residence north of the border is entirely a matter of estimate. As this immigration has assumed importance since the census of 1900, figures derived from the census reports do not indicate present conditions and tendencies. Nevertheless, the following table gives the statistical background for the subject, so far as one exists:

MEXICAN POPULATION AND PER CENT OF MEXICAN OF TOTAL POPULATION IN THE UNITED STATES AND IN CERTAIN BORDER STATES AND TERRITORIES, 1880, 1890, AND 1900.

Locality.	1880.		1890.		1900.	
	Mexican-born population.	Per cent of total population.	Mexican-born population.	Per cent of total population.	Mexican-born population.	Per cent of total population.
Arizona.....	9,330	23.06	11,534	19.35	14,172	11.53
California.....	8,648	1.00	7,164	.51	8,086	.54
New Mexico.....	5,173	4.32	4,504	2.93	6,649	3.40
Texas.....	43,161	2.71	51,559	2.31	71,062	2.33
Border States and Territories.	66,312	2.54	74,761	2.04	99,969	2.06
Total United States.....	68,399	.14	77,853	.12	103,410	.14

Up to 1900 very few Mexicans had emigrated beyond the border States and Territories. For instance, Colorado, which now employs several hundred Old Mexicans transiently, had but 274 residents of that nationality in the last census year. Louisiana had 488. Colorado, however, had 10,222 residents, mostly in the mining counties around Trinidad, who had been born in New Mexico.

The table shows that between 1880 and 1890 the Mexican-born population increased more slowly than the total population; but that during the following decade it increased at a more rapid ratio than the total population, both in the United States as a whole and in all the border districts except Arizona. In 1880 Mexicans comprised 1.01 per cent of the total foreign-born population of the United States; in 1890, 0.9 per cent, and in 1900, 1 per cent, showing the same general tendency of variation as to the total population. Of the more than 5,000 immigrants who passed through El Paso in September, 1907, not one expressed the intention of becoming an American citizen. The only one of several score questioned at the immigration station who had this intention was a skilled mechanic, of quite a different class from the main body of immigrants. Nevertheless, Mexicans are settling permanently, especially in Texas and California. Two persons in a position to be unusually well informed upon the subject, one of them a general official of a railway carrying immigrants to the frontier, estimated that 50 per cent of those who visited the United States finally made their home there. Upon the Mexican Central Railway, which moves more immigrants than any other single road in Mexico, the official estimate of third-class passengers (laborers) crossing the frontier northward during the twelve months ended with August, 1907, was 50,000, and the return traffic during the same period was estimated to be 37,000. However, the proportion of those passing through El Paso who return is larger than of those crossing the lower Rio Grande, because so much of the former labor is employed on railways and in mines in the desert, where there is little temptation to make a permanent home. Immigrants through El Paso are seldom accompanied by their families, while many women and children cross at Laredo, especially to pick cotton. A prominent Mexican merchant in San Antonio, Tex., said: "Mexicans who have come to the United States seldom go back to stay, because conditions are better here, and because they are not kept down so much in this country." The superintendent of public instruction of Arizona stated that in the southern counties of that Territory nearly one-half the children enrolled in public schools have foreign-born parents, mostly Mexicans, but that very few of these children were born in Mexico. In California Mexican laborers were said to be accompanied by their families, and to be settled in little colonies near a number of the larger towns; but in Colorado there was no evidence that the immigrant Mexicans have come to remain. An evidence of increasing settlement in Texas is the large number of excursionists that return to Mexico each year to attend the religious festivals at Aguas Calientes and at the City of Mexico. These people, though Mexican born, buy return tickets to Texas.

The transition in Texas from an immigration of temporary laborers to one of settlers was thus described by a railroad official who had

observed it from the outset: "Ten years ago our Mexican immigrants were chiefly men. It was rare to see a woman among those who came through here from any distance down the line. About 900, men who had been in the United States and returned to Mexico began to bring back their families with them. Usually they were also accompanied by a number of single men, or married men without their families, who had never before been in this country. Most of the men who had families with them did not go back the following season, but the men without their families did, and some of them in turn came back the next year with their families to remain permanently. So the process goes on, with, I believe, a larger proportion of women and children among the immigrants each year, and a larger proportion remaining in this country."

The Bishop of Texas diocese (Roman Catholic) stated that many thousand immigrants from Old Mexico were settling in his parishes, and that the increase of Mexican population was general throughout the southern part of the State.

Probably a conservative estimate of the proportion of the immigrants remaining permanently in the United States would be from one-fourth to one-third. The number is probably in the neighborhood of 20,000 per annum. In the lack of more definite data than possessed at present the number can only be estimated—and the estimate has possibly a wide margin of error—because this annual increment to the permanent Mexican population of the country sets over such a wide area that its presence is hardly perceptible except in large city colonies.

Americans of Mexican descent take an active part in local politics and have their bosses and machines like English-speaking Americans. In New Mexico they were said to make very fair citizens, though more apt to be loyal to personal leaders than to political parties. The immigrants, even if they make their home in this country, seldom become naturalized. The records at San Antonio show that before the federal naturalization law went into operation the number of persons with German names who became citizens was eight or nine times the number of those bearing Spanish names, though the Mexican population of Bexar County is over one-third the total foreign-born residents. In the entire State in 1900 the Mexican population was 39.6 per cent of the total foreign-born population, and doubtless has been increasing relatively since that year. Those Mexicans who become naturalized have usually resided in the United States for many years, sometimes for the greater part of their lives. It is not unusual for several persons of the same family name to acquire citizenship at the same time, probably to facilitate the settling of an estate or for some other legal purpose.

Spanish-speaking citizens consider themselves socially superior to the immigrants, and rather pride themselves on being Americans.

There is for this reason less social intermingling than the identity of language, religion, and customs might lead one to expect. The "Americanization" of the Spanish-speaking population of the Southwest is proceeding much more rapidly at present than heretofore, partly because these people are themselves migrating temporarily or permanently to English-speaking sections of the country, and partly because of the large immigration from other parts of the Union. The history of Las Vegas, N. Mex., indicates how this change affects civic ideals. The original Mexican town in the river valley antedates the advent of the American. When the railway was built an American town grew up in its vicinity, possibly a mile from the center of the older village. Later the two places were incorporated as a single city. But this arrangement was unpopular with the Mexicans, used to more primitive political arrangements and averse to taxation, and through their influence the town was disincorporated. The American town then went ahead, incorporated separately, constructed public works, and built up an excellent system of public schools, including a high school, housed in fine buildings. After several years the Mexican town finally incorporated separately and now is following the example of its neighbor in the matter of improvements and school facilities. So this New Mexican and largely Spanish-speaking community is now taxing itself more heavily than many a town in the East for public education, and has issued bonds and erected creditable schoolhouses. This case is fairly representative of what is taking place wherever the railway and American example are bringing the influence of other sections of the country to bear upon the native population. An educational officer, who himself spoke Spanish fluently, whose duties made him familiar with conditions in the southern part of Colorado, said that a marked language change had occurred within ten years, so that while formerly it was comparatively rare to meet a person of Mexican race who spoke English, it was now rare to meet a young "Mexican" who was not familiar with that language.

These changes to American habits of life in the home, and to American civic ideals in the community, coupled with the gradual acquisition of English in the public schools, are all recent. The public school system of New Mexico is but fifteen years old, and railways have been in the territory less than a generation. They have as yet influenced appreciably only that part of the so-called Mexican population that has been born in the United States. At present the immigrant Mexican does not seem likely to be assimilated by our own people; that is, actual fusion of blood appears to be remote. But barring this, which may not be permanent, he may learn to understand our institutions and adopt our habits of thought and *action in public affairs.*

COST OF LIVING OF THE WORKING CLASSES IN THE PRINCIPAL INDUSTRIAL TOWNS OF THE GERMAN EMPIRE.

SCOPE OF THE INVESTIGATION.

Under the above title is presented the results of an investigation undertaken by the British Board of Trade in the 33 principal industrial towns of the German Empire in order to obtain, in regard to the condition of the working classes therein, information comparable with that given for the principal industrial towns of the United Kingdom in the report on the "Cost of Living of the Working Classes," presented to Parliament in December, 1907, by the Labor Department of the Board of Trade.^a The investigation has reference primarily to the rents of working-class dwellings, to the prices usually paid by the working classes for food and fuel, and to wages and hours of labor. It was conducted so far as practicable on lines identical with the inquiry for the towns of the United Kingdom, and the statistical material collected relates in the main to the same date (October, 1905), though in some instances, particularly in regard to prices and wages, information was procured for a later date (March-April, 1908).

In order to arrive at some estimate of the standard of living among the German industrial classes, over 5,000 budgets showing the expenditure for food by working-class families in a normal week, and representative of numerous occupations and of all grades of incomes, were obtained from the various towns investigated. These towns contain an aggregate population of some 9,000,000.

Any exact statistical comparison of cost of living in Germany with cost of living in England is not a simple matter. Even when all the difficulties of maintaining the same standard of investigation throughout have been successfully overcome there remains a difficulty inherent in the nature of things arising from the different habits and modes of living in the two countries. The point is well illustrated by the result obtained from the present investigation, "that an English workman migrating to Germany, and maintaining, so far as possible, his own standard of living would find the cost of rent, food, and fuel raised by about one-fifth, while the German workman who migrated to England, but retained his own habits of living, would find his

^a See Bulletin of the Bureau of Labor, No. 77, July 1908, pp. 336 to 354.

expenditure on the same items reduced by less than one-half that amount."

As a basis of comparison for the German towns among themselves the levels of rents, prices, and wages in Berlin have been taken as standards, and index numbers calculated for each of these items in every town, so as to afford an indication of the relative levels of the towns. The index numbers for rents and prices in each town have also been combined in a single index number, in order to determine the relative level for each town of the cost of living of the working classes, so far as it consists of expenditure for housing and food, and for this purpose, as the expenditure for food is much greater than that for rent, prices have been given a weight of 4 and rents a weight of 1 in the construction of the combined index number. The comparison of the rates of wages has been confined mainly to occupations in certain standard industries, as in the United Kingdom report, namely, the building trades, engineering (mechanical), and printing, which are found to a greater or less extent in all the towns. The general result of the comparison is that in German towns the workmen engaged in these industries receive about 17 per cent less in money wages in return for a week's work of about 10 per cent longer duration than the corresponding English workmen. In other words, their hourly rate of money remuneration is about three-fourths of the corresponding English rate, while the cost of food, rent, and fuel (measured by the English standard) is about one-fifth higher.

According to the report for the United Kingdom the prevailing type of dwelling occupied by the working classes in England and Wales, and to a less degree in Ireland, is a self-contained two-story dwelling, possessing generally four or five rooms and a separate scullery; in Germany the predominant type is a flat of two or three rooms with appurtenances, in a large tenement house. The German housing system, therefore, approximates more closely to the Scottish type—blocks of flats of two, three, or four stories—than to the English. English rents of working-class dwellings usually include local taxation, which is based on the rentable value of the dwellings; in Germany local taxation is levied on an entirely different basis, and is not included in rent. In regard to food the British workman's meat consists mainly of beef and mutton, while pork (even including bacon) is relatively small in amount; the German workman, on the other hand, eats chiefly pork (including sausage) and beef, and only a very little mutton. The pure wheat bread eaten by the working classes of the United Kingdom is replaced in Germany either by pure rye bread or, more commonly, by some mixture of rye and wheat. These are only a few indications of the difficulties which arise in international comparisons, and it seems desirable to repeat the warning that

in the construction of comparative index numbers it is impossible to make full allowance for diversity of national habits, tastes, and prejudices.

It may be pointed out that there is little if any difference between the general levels of rent in Germany and rent in England, though rents in England include a considerable element of local taxation, while rents in Germany do not; and that rents in Berlin exceed those of all the other German towns investigated (except Stuttgart) to practically the same extent as rents in London exceed those which prevail in other towns of the United Kingdom. Further, the range of town price levels in Germany, as in the United Kingdom, is not very great, though somewhat wider in the case of the German towns, with the result that the differences between the cost of living (so far as it relates to the expenditure for rent, food, and fuel) in one or another of the German towns investigated are not very much larger than those which exist between the towns of the United Kingdom. The general level of prices is, however, distinctly higher in Germany than in the United Kingdom, and in this connection an important instance of the effects of differences in national habits may be noticed. The English workman going to Germany and maintaining his accustomed standard of living would find his expenditure for food and fuel substantially increased; but in spite of the generally higher level of prices in Germany the German workman coming to England, and maintaining his own standard, would not find his expenditure reduced in a corresponding proportion. This is due mainly to the fact that the German workman takes much more than the English workman of certain food commodities, chiefly potatoes and milk, which are cheaper in German than in English towns. Finally, while nominal rents are as high in Germany as in England—and in fact higher, since they do not include local taxation, which the German workman must pay separately—and also while the general level of food prices in the German towns is higher than in England, wages in those trades for which a comparison has been made are substantially lower, even when longer hours are worked.

In addition to obtaining information comparable with that given in the report on the "Cost of living of the working classes in the principal industrial towns of the United Kingdom," much information was obtained as to the general conditions of industrial life and labor in Germany, including such matters as the distribution of occupations and organization of industry, wage agreements and hours of labor, factory rules, workmen's societies and institutions, housing, public health administration, vital statistics, municipal enterprises, and local taxation. Besides those used for purposes of comparison, the industrial occupations covered by the reports is of wide range.

RENTS OF WORKING-CLASS DWELLINGS.

THE GERMAN EMPIRE.

In order to ascertain the rents paid for the kind of dwellings usually occupied by the German working classes, information was obtained from the municipal authorities, from individual house owners, and from large numbers of tenants through the trade unions. In each town a number of houses were visited by the investigators, partly for the purpose of verifying the information obtained as to rents and partly that some account might be given in each case of the general character and standard of housing accommodation.

The prevalent type of working-class dwelling in Germany, as already stated, is a flat in a large house, containing a minimum of six or seven tenements. This may fairly be described as the common type of housing accommodations for all classes in Germany, and it is a characteristic feature of German towns that, while there are purely working-class districts, yet the working classes are generally scattered throughout the whole of a town, occupying either the upper floors of houses whose lower floors may be occupied by middle-class tenants, or else housed in buildings which lie concealed behind the better-class houses visible from the street. In some of the larger towns these houses with many tenements resemble large barracks built around small paved courtyards, there being in addition to the block fronting upon the street another block lying behind and parallel to it, and not infrequently also one or more side blocks either isolated or running back from the front block and connecting it with the one at the rear. The rents in these back and side houses are as a rule lower than those paid in the front blocks. In the more modern constructions there are many variations of this plan, tending on the whole to the elimination of either the back or the side blocks or of both.

The traditional and still normal working-class dwelling in such a house consists of three rooms (living room, bedroom, and kitchen), together with certain appurtenances, such as a share of the cellar for the storage of fuel, etc., and even for laundry use, and the use (on a particular day) of a loft for drying purposes. Many of the newer tenements have at the front or back a balcony, which is used in this latter way also. Two-room tenements, usually with appurtenances, are also very common, and these two types (with the three-room tenement predominant) may be taken as representing the prevalent standard of working-class housing throughout Germany. Four-room tenements are of importance in this connection only in rare cases; tenements of one room, though fairly frequent, are not sufficiently so to be regarded as constituting an important type.

while working-class dwellings of five or more rooms are scarcely to be found.

From rent quotations obtained for over 107,000 working-class tenements the following table has been constructed to show the predominant range of weekly rents for tenements of various sizes in Germany as a whole, excluding Berlin. It should be stated that the rents include the charge for water, and in some cases small charges for chimney sweeping and the removal of refuse; but they do not include any element of local taxation.

WEEKLY RENTS IN TOWNS OF GERMANY (EXCLUDING BERLIN).

Number of rooms per tenement.	Number of towns to which figures relate.	Predominant range of weekly rents.	Number of towns in which the mean rent is—		
			Within the limits of the predominant range.	Below the limits of the predominant range.	Above the limits of the predominant range.
Two rooms.....	22	\$0. 65-\$0. 85	13	5	4
Three rooms.....	32	. 85- 1. 16	19	6	7
Four rooms.....	15	1. 03- 1. 46	8	3	4

From the above table it will be seen that the three-room tenement was found to be an important type of working-class housing in every one of the towns investigated, that two-room tenements were of importance in two-thirds of the towns, and four-room tenements in rather less than one-half of the total number.

A comparison of the predominant range of rents (except for four-room tenements), given in the above table, with those shown for Berlin, reveals the extent to which rents in the metropolis exceed those which prevail in other German towns. The contrast is brought out in the following brief table:

WEEKLY RENTS IN BERLIN AND IN OTHER GERMAN TOWNS COMPARED.

Locality.	Predominant range of weekly rents for—	
	Two rooms.	Three rooms.
Berlin.....	\$1. 22-\$1. 46	\$1. 70-\$2. 25
Other German towns.....	. 65- . 85	. 85- 1. 16

Thus, while the mean rent for two rooms in Berlin is \$1.34, in the other towns as a whole it is only \$0.75, and for three rooms in Berlin it is \$1.97½, and elsewhere only \$1.00½. It may be noted that rents are nearly as high in Stuttgart as in Berlin, the mean weekly rents for two and three rooms in that town being \$1.26 and \$1.97½, respectively.

In the table following is shown the predominant range of weekly rents for tenements of two, three, and four rooms in the 33 towns of the Empire investigated.

WEEKLY RENTS IN 33 GERMAN TOWNS.

Town.	Predominant range of weekly rents for		
	Two rooms.	Three rooms.	Four rooms.
Aix-la-Chapelle	\$0.65-\$0.85	\$0.85-\$1.12	
Aschaffenburg		1.12- 1.40	
Barmen	.59- .93	.83- 1.40	
Berlin	1.22- 1.46	1.70- 2.25	
Bochum	.73- .91	.73- 1.40	
Bremen		.85- 1.12	\$1.
Breslau	.79- .89	.85- 1.12	
Brunswick		.57- .85	
Chemnitz		.57- .79	
Crefeld	.71- .85	.85- 1.12	1.
Danzig	.57- .73	.85- 1.12	
Dortmund	.85- .97	1.26- 1.46	
Dresden		.93- 1.26	
Düsseldorf	.97- 1.22	1.30- 1.70	
Elberfeld	.61- .85	.97- 1.40	
Essen	.67- .87	.89- 1.40	1.
Hamburg		1.12- 1.40	1.
Königsberg	.81- .97	1.03- 1.28	
Königshütte	.53- .67	.85- 1.12	
Leipzig		.85- 1.01	1.
Magdeburg		.71- .89	
Mannheim	.79- .89	1.01- 1.30	1.
Mülhausen	.49- .67	.79- 1.12	1.
Munich	.73- .97	1.01- 1.40	
Nuremberg		.85- 1.22	1.
Oschersleben		.43- .59	
Plauen	.59- .71	.81- .93	1.
Remscheid	.73- .85	.85- 1.26	
Solingen	.73- .85	.85- 1.40	1.
Stassfurt	.43- .55	.57- .61	
Stettin		.79- .95	
Stuttgart	1.12- 1.40	1.70- 2.25	
Zwickau	.49- .57	.57- .85	

In the following table index numbers are given showing the rent level in each of the towns canvassed as compared with Berlin. Rents of two and three room tenements only were obtained for Berlin; the rents of four-room tenements there being beyond the means of the working classes. As four-room tenements constituted an important type in several other towns, it was not possible to use the predominant range of rents in Berlin directly as the basis for comparison for the rent levels of the several towns, hence the following means was adopted. The means of the predominant rents for each class of tenements in the whole of Germany (excluding Berlin), as shown in the table on page 527, were taken as the base and the ratios of the mean predominant rents for the corresponding classes in the various towns as compared with this base were calculated. The average of the ratios for the various types of houses in each town gave an index number for the town as compared with the level for the German towns as a whole, excluding Berlin. The index number for Berlin computed in the same way, was then taken as the base (or 100) and the index numbers for the other towns adjusted accordingly.

RELATIVE RENT LEVEL OF GERMAN TOWNS AS COMPARED WITH BERLIN.

Town.	Index number.	Town.	Index number.	Town.	Index number.
Berlin.....	100	Bochum.....	57	Leipzig.....	51
Stuttgart.....	97	Elberfeld.....	57	Danzig.....	49
Düsseldorf.....	79	Barmen.....	57	Mülhausen.....	48
Dortmund.....	68	Remscheid.....	56	Königshütte.....	47
Aschaffenburg.....	67	Breslau.....	56	Stettin.....	46
Hamburg.....	66	Dresden.....	54	Magdeburg.....	43
Mannheim.....	64	Nuremberg.....	53	Chemnitz.....	40
Königsberg.....	62	Alx-la-Chapelle.....	53	Zwickau.....	38
Munich.....	62	Crefeld.....	52	Brunswick.....	37
Essen.....	62	Bremen.....	52	Stassfurt.....	33
Solingen.....	61	Plauen.....	52	Oschersleben.....	28

THE GERMAN EMPIRE AND GREAT BRITAIN COMPARED.

A comparison of the predominant range of weekly rents in England and Wales with the predominant range in Germany for tenements of two, three, and four rooms is presented in the table following:

WEEKLY RENTS IN ENGLAND AND WALES AND IN GERMANY COMPARED.

Number of rooms per tenement.	Predominant range of weekly rents in—		Ratio of mean predominant rent in Germany to that in England and Wales, taken as 100.
	England and Wales.	Germany.	
Two rooms.....	\$0.73-\$0.85	\$0.65-\$0.85	95
Three rooms.....	.91- 1.10	.85- 1.16	100
Four rooms.....	1.10- 1.34	1.03- 1.46	102.5

The above table shows an approximate equality of rents that is quite remarkable, more particularly when it is remembered that the English rents cover all local taxation while the German rents do not. If the mean of the index numbers in the last column might be taken as representing roughly the rent level in Germany as compared with that in England, we should find the German rent level slightly the lower of the two—in the ratio of 99 to 100. A comparison on these lines is, however, liable to be somewhat misleading, for the reason that rents of two, three, and four room tenements were not obtained from all the towns investigated in each case. It is necessary, therefore, to adopt some more exact method of comparison less open to possible bias. This has been done by reworking all the rent index numbers for the German towns to the basis used for Great Britain, viz, comparing the mean predominant rents of the types of tenements shown for each town in Germany with the mean predominant rents shown for tenements of the same size in the middle zone of London, and using as the index number in each case the average of the percentages so obtained. The resulting index numbers for the German towns investigated,

shown in the table below, are accordingly directly comparable with the index numbers for the English towns shown in the report for the United Kingdom. It may be noted as a coincidence that this method of comparison gives for Berlin the index number 100, as shown in the table, but it should be borne in mind that the predominant rents in the middle zone of London represent the base (100) in every case.

RELATIVE RENT LEVEL OF GERMAN TOWNS AS COMPARED WITH THE MIDDLE ZONE OF LONDON AS THE BASE (100).

Town.	Index number.	Town.	Index number.	Town.	Index number.
Berlin.....	100	Elberfeld.....	58	Plauen.....	5
Stuttgart.....	97	Barmen.....	57	Danzig.....	4
Düsseldorf.....	79	Bochum.....	57	Mülhausen.....	4
Hamburg.....	70	Dresden.....	57	Stettin.....	4
Aschaffenburg.....	69	Breslau.....	56	Königshütte.....	4
Dortmund.....	68	Nuremberg.....	56	Magdeburg.....	4
Mannheim.....	66	Remscheid.....	56	Chemnitz.....	4
Essen.....	63	Bremen.....	55	Brunswick.....	3
Königsberg.....	62	Leipzig.....	54	Zwickau.....	3
Munich.....	62	Aix-la-Chapelle.....	53	Stassfurt.....	3
Solingen.....	62	Crefeld.....	53	Oschersleben.....	2

The whole series of numbers is very similar to that given for English towns, but the rent levels of German towns show a somewhat greater variation than those in the English table. The ratio of the arithmetic mean for Germany to that for England is 101 to 100, and this ratio, or the index number 101, is taken for the purposes of this report as representing approximately the rent level in Germany as compared with England. While from the preceding estimate there appears no great difference one way or the other between the rents payable for a given number of rooms of working-class accommodation in the industrial towns of the two countries, there is, however as already mentioned, a very important difference between the services obtained for the payment of rent in England and in Germany. When an English workman has paid his rent he has in nearly all cases not only paid for the use of the rooms that he occupies but also for all the services provided by the local authority out of the rates. In Germany local taxation is paid by means of an addition to the State income tax and, consequently, the workman who has paid his rent has nevertheless still to pay taxes.

It is estimated that approximately 18 per cent of the rent paid by the British workingman goes for local taxation. This makes the German rents bear to English rents the ratio of 101 to 82, which is equivalent to 123 to 100.

RETAIL PRICES.

THE GERMAN EMPIRE.

Information as to the prices commonly paid by the German working classes for food commodities, for fuel, and for paraffin oil was obtained from a large number of shopkeepers in each of the towns investigated and also from the cooperative societies where these existed. It must be remembered that the prices shown are not necessarily the minimum prices at which the commodities could be obtained, but simply the prices which the working classes did in fact usually pay in the month of October, 1905, and where a range of prices is given it is because they appear to be of equal popularity. The differences between one town and another, accordingly, represent often not so much differences in the cost of identical commodities as variations in local tastes and sometimes in local standards of comfort.

The following table presents the predominant range of retail prices commonly paid by the working classes for certain commodities, for Germany as a whole (including Berlin):

RETAIL PRICES OF COMMODITIES IN TOWNS OF GERMANY, OCTOBER, 1905.

Commodity.	Unit.	Number of towns included.	Predominant range of retail prices, October, 1905.	Number of towns in which the mean predominant price is—		
				Within the limits of the predominant range.	Below the limits of the predominant range.	Above the limits of the predominant range.
Coffee.....	1 pound...	33	\$0.22 - \$0.26	22	3	8
Sugar, granulated.....	do.....	33	.04½ - .05	24	4	5
Bacon.....	do.....	33	.18 - .22	30	2	1
Cheese, Dutch.....	do.....	12	.18 - .20	8	1	3
Cheese, Limburg.....	do.....	27	.10 - .13	23	3	1
Butter.....	do.....	33	.26 - .30	27	2	4
Margarin.....	do.....	32	.16 - .18	25	6	1
Potatoes.....	7 pounds..	33	.04½ - .06	25	5	3
Flour, wheat.....	do.....	33	.23 - .28	20	7	6
Bread, gray.....	4 pounds..	32	.10 - .13	27	3	2
Milk.....	1 quart.....	33	.05 - .05½	25	7	1
Beef.....	1 pound.....	33	.16 - .18	26	6	1
Pork.....	do.....	33	.18 - .22	29	4	.....
Coal.....	1 cwt.....	31	.22 - .32	19	6	6
Paraffin oil.....	1 gallon...	33	.19 - .22	30	1	2

In the following table is shown the predominant range of prices of the principal commodities in 12 towns of Germany, selected as to certain geographical districts:

RETAIL PRICES OF COMMODITIES IN 12 SELECTED TOWNS OF GERMANY, OCTOBER 1905.

Commodity.	Unit.	Berlin.	Breslau.	Danzig.	Dresden.
Coffee.....	1 pound...	\$0.22	\$0.22	\$0.18	
Sugar, granulated.....	do.....	\$0.05-0.05½	.04	.04	
Bacon, fat.....	do.....	.18-.21	\$0.20-.22	.20	\$0.20-
Bacon, streaky.....	do.....	.20-.24	.20-.21	.20	.20-
Eggs.....	1 dozen.....	.17	.16	.23	
Cheese:					
Dutch.....	1 pound...	a. 18			
Limburg.....	do.....	.11-.13	.16		
Swiss.....	do.....	.22		\$0.18-.20	
Butter.....	do.....	.26-.29	.29-.30	.29	.30-
Margarin.....	do.....	.18	.13	.16	
Potatoes.....	7 pounds..	.04-.04½	.04-.05	.03½	.04-
Flour, wheat.....	do.....	.31	.20	.22-.23	
Flour, rye.....	do.....	.23	.17-.19	.17	.25-
Bread, gray.....	4 pounds..	.11	.10	.11	.10-
Bread, black.....	do.....	.10			
Milk.....	1 quart.....	.05-.05½	.04½	.04½	
Coal.....	1 cwt.....	.30	.25	.28-.32	
Paraffin oil.....	1 gallon..	.22	.20	.20	.19-
Beef:					
Ribs.....	1 pound...	.16-.18	.18-.19	.14	
Silverside.....	do.....	.18-.22	.20	.17	.18-
Shin, with bone.....	do.....	.13	.16-.18	.09	
Shin, without bone.....	do.....	.16	.20-.21		
Steak.....	do.....	.22-.26	.33	.20	.26-
Flank.....	do.....	.13-.16	.18	.16	
Mutton:					
Leg.....	do.....	.19-.20	.22	.18	.20-
Shoulder.....	do.....	.17-.20	.20-.22	.17	
Breast.....	do.....	.16	.20	.17	.16-
Neck.....	do.....	.16	.22	.16	
Chops, trimmed.....	do.....	.20-.22	.22-.24	.19	
Pork:					
Leg.....	do.....	.17-.19	.20	.17-.18	.20-
Foreloin.....	do.....	.18	.20	.17	.20-
Belly.....	do.....	.14-.18	.18-.19	.17	
Spare ribs.....	do.....	.19-.21	.20	.18	.22-
Chops.....	do.....	.22-.24	.24	.20	.22-
Veal:					
Hind quarter.....	do.....	.20-.24	.22	.18	.20-
Shoulder, with bone.....	do.....	.18	.22	.14-.17	.18-
Shoulder, without bone.....	do.....	.26	.23-.31	.26	.22-
Shin.....	do.....	.16	.18-.22	.09-.11	
Loin.....	do.....	.20-.22	.26	.18-.22	.20-

Commodity.	Unit.	Dusseldorf.	Essen.	Hamburg-Altona.	Leipzig.
Coffee.....	1 pound...	\$0.22	\$0.20-\$0.22	\$0.20	\$0.22-
Sugar, granulated.....	do.....	.05½	.04½-.05	.04½	
Bacon, fat.....	do.....	.20	.18-.21	.20	.19-
Bacon, streaky.....	do.....	.22	.19-.21	\$0.20-.22	.20-
Eggs.....	1 dozen.....	.22	.19-.27	.17-.21	
Cheese:					
Dutch.....	1 pound...	\$0.20-.21	.18-.19	.20-.22	
Limburg.....	do.....	.11	.10-.11	.12	.09-
Swiss.....	do.....	.21-.22	.22-.24	.22-.26	
Butter.....	do.....	.29-.31	.26-.31	.24-.26	.29-
Margarin.....	do.....	.16	.12-.18	.11-.13	
Potatoes.....	7 pounds..	.04½-.06	.04½	.05½	.04½-
Flour, wheat.....	do.....	.23	.22-.23	.22	.25-
Flour, rye.....	do.....		.19-.22	.19	
Bread, gray.....	4 pounds..	.11-.12	.13	.10-.11	
Bread, black.....	do.....		.06-.09	.08-.09	
Milk.....	1 quart.....	.05½	.05	.05½	
Coal.....	1 cwt.....	.23	.17-.22	.23-.26	
Paraffin oil.....	1 gallon..	.19	.19-.20	.17-.18	
Beef:					
Ribs.....	1 pound...	.17	.14-.16	.16	.17-
Silverside.....	do.....	.16-.19	.14-.16	.17	.20-
Shin, with bone.....	do.....	.14-.16	.14	.10-.11	.14-

a Tilsit cheese.

RETAIL PRICES OF COMMODITIES IN 12 SELECTED TOWNS OF GERMANY, OCTOBER, 1905—Concluded.

Commodity.	Unit.	Dusseldorf.	Essen.	Hamburg-Altona.	Leipzig.
Beef—Concluded.					
Shin, without bone	1 pound...	\$0.22		\$0.13-\$0.14	\$0.18-\$0.22
Steak	do.	.26	\$0.22	.29-.35	.20
Flank	do.	\$0.14-.16	\$0.13-.16	.16-.18	.18
Mutton:					
Leg	do.	.19-.20	.16-.20	.20	.20
Shoulder	do.	.18	.16-.18	.20	.17-.18
Breast	do.	.13-.14	.14-.18	.20	.17-.18
Neck	do.	.13-.14	.14-.18	.16-.20	.17-.18
Chops, trimmed	do.	.18-.20	.20-.22	.20-.24	.18-.20
Pork:					
Leg	do.	.20-.22	.18-.20	.18-.20	.18-.20
Foreloin	do.	.20-.24	.18-.22	.20	.18-.20
Belly	do.	.20	.16-.20	.18	.18
Spare ribs	do.	.22	.16-.20	.18	.20-.22
Chops	do.	.22	.18-.22	.20-.22	.22
Veal:					
Hind quarter	do.	.20-.21	.18-.20	.20	.20
Shoulder, with bone	do.	.18-.19	.18-.20	.18	.18
Shoulder, without bone	do.	.26		.20-.22	
Shin	do.		.18	.13-.16	.13
Loin	do.	.31	.22	.22	.20-.22

Commodity.	Unit.	Magdeburg.	Munich.	Nuremberg.	Stuttgart.
Coffee	1 pound...	\$0.22	\$0.22-\$0.26	\$0.22-\$0.26	\$0.22-\$0.26
Sugar, granulated	do.	.04½	.05	.05	.05
Bacon, fat	do.	.20	.18-.20	.22-.24	.18-.19
Bacon, streaky	do.	.22	.18-.20	.22-.24	.18-.19
Eggs	1 dozen	\$0.21-.27	.21	.19-.21	.19-.21
Cheese:					
Dutch	1 pound...				
Limburg	do.	.11-.13	.11	.11	.11-.13
Swiss	do.	.24-.26	.22-.26	.22-.26	.22
Butter	do.	.29	.26-.29	.26-.29	.29
Margarin	do.	.16-.18	.16	.17	.18
Potatoes	7 pounds.	.05½-.06	.04½-.06	.04½	.04½
Flour, wheat	do.	.22-.25	.31	.31	.28
Flour, rye	do.	.20			
Bread, gray	4 pounds.	.09-.10	.13	.11-.13	.12
Bread, black	do.				.10
Milk	1 quart	.05-.05½	.05½	.05½	.05
Coal	1 cwt.	.21-.22	.30	.29-.33	.40-.42
Paraffin oil	1 gallon	.19	.22	.20	.20
Beef:					
Ribs	1 pound...	.18	.16-.18	.18	.16-.18
Silverside	do.	.18-.20	.16-.18	.18	.16-.18
Shin, with bone	do.	.18	.16-.18	.18	.16-.17
Shin, without bone	do.	.20	.22	.22	
Steak	do.	.22	.20-.26	.33	.22-.26
Flank	do.	.16-.18	.16-.18	.18	.16-.17
Mutton:					
Leg	do.	.20	.15-.18	.17-.20	.16-.19
Shoulder	do.	.18-.20	.15-.16	.17-.19	.16-.19
Breast	do.	.16-.18	.12-.16	.17-.19	.16-.19
Neck	do.	.16	.12-.16	.17-.19	.16-.19
Chops, trimmed	do.	.20	.16-.18	.22	.22-.26
Pork:					
Leg	do.	.20	.19-.20	.20	
Foreloin	do.	.20	.18-.20	.20	.19
Belly	do.	.18	.18-.20	.20	.19
Spare ribs	do.	.18	.18-.20	.20	.19
Chops	do.	.20-.22	.19-.20	.22-.24	.19
Veal:					
Hind quarter	do.	.18-.20	.16-.18	.17-.19	.17-.19
Shoulder, with bone	do.	.18	.16-.18	.17-.19	.17-.19
Shoulder, without bone	do.	.20		.26-.31	
Shin	do.	.18			
Loin	do.	.18-.20	.16-.18	.17-.19	.17-.19

In order to obtain an indication of the level of prices for each town as compared with other towns, index numbers have been constructed, the level of prices in Berlin being taken as the base (100). In the construction of the index numbers, in order to allow for the varying importance of the prices of different articles, as judged by the normal weekly expenditure of a working-class family, recourse was had to "weighting." For this purpose average quantities estimated from 5,046 family budgets giving weekly cost and quantity of certain articles of food consumed by workmen's families in German towns, in 1906-7, were utilized.

The following table groups these 5,046 families according to the aggregate weekly income of the family (not of the principal wage-earner only), and shows for each group the average family income and the average number of children at home for a representative week in 1906-7:

NUMBER AND AVERAGE INCOME OF URBAN WORKMEN'S FAMILIES REPORTING IN EACH CLASSIFIED INCOME GROUP AND AVERAGE NUMBER OF CHILDREN LIVING AT HOME, FOR A REPRESENTATIVE WEEK, 1906-7.

Classified weekly income.	Number of families reporting.	Average weekly family income from—			Total weekly family income.	Average number of children at home.
		Husband.	Wife.	Children.		
Under \$4.87.....	193	\$4.10	\$0.18	\$0.01	\$4.29	2.37
\$4.87 or under \$6.08.....	872	5.25	.23	.04	5.52	2.28
\$6.08 or under \$7.30.....	1,329	6.15	.34	.10	6.59	2.51
\$7.30 or under \$8.52.....	1,223	7.07	.47	.21	7.75	2.51
\$8.52 or under \$9.73.....	692	7.80	.65	.47	8.92	2.79
\$9.73 or over.....	737	8.08	.68	3.09	11.85	3.76

With regard to the statistics of families with the higher ranges of income it must be remembered that the amount of the family income is often due to the supplementary earnings of the wife or of children living at home, rather than to the high earnings of the head of the family. This is particularly the case where the income amounts to \$9.73 or more per week. As will be seen from the table, the average number of children living at home was, in the families of this class, higher than the average number for all the families from which budgets were obtained.

The tables following give the average expenditures for food of the 5,046 workmen's families to which the returns relate and the quantities consumed by them of the various articles of food in a representative week in 1906-7. All children living at home, irrespective of age, have been included, but returns in which lodgers appeared have been excluded.

GE COST OF FOOD CONSUMED BY URBAN WORKMEN'S FAMILIES REPORTING
EACH CLASSIFIED INCOME GROUP FOR A REPRESENTATIVE WEEK, 1906-7.

Items.	Average cost for families reporting weekly incomes of—					
	Under \$4.87.	\$4.87 or under \$6.08.	\$6.08 or under \$7.30.	\$7.30 or under \$8.52.	\$8.52 or under \$9.73.	\$9.73 or over.
nd flour.....	\$0.598	\$0.644	\$0.700	\$0.740	\$0.831	\$1.100
ef, pork, mutton, veal).....	.547	.573	.684	.821	.928	1.242
.....	.228	.289	.324	.395	.431	.598
her), including fish.....	.071	.081	.086	.096	.117	.147
.....	.106	.122	.132	.147	.162	.198
.....	.066	.122	.152	.172	.193	.243
sh.....	.208	.269	.314	.340	.390	.431
.....	.056	.061	.076	.091	.106	.132
.....	.162	.248	.319	.375	.411	.527
.....	.081	.101	.107	.112	.127	.152
.....	.198	.203	.208	.213	.238	.294
vegetables and fruit.....	.056	.122	.162	.188	.208	.269
ley, and oatmeal.....	.035	.051	.056	.056	.061	.071
i.....	.010	.020	.030	.030	.036	.046
.....	.117	.142	.157	.172	.193	.248
.....	.086	.091	.096	.102	.106	.132
nd chocolate.....	.005	.020	.036	.041	.046	.056
.....	.015	.015	.015	.015	.015	.020
condiments.....	.031	.046	.051	.056	.061	.066
et, and dripping.....	.182	.157	.157	.162	.182	.223
ms of food.....	.041	.081	.107	.102	.122	.152
ray from home.....	.051	.101	.132	.162	.182	.314
.....	.041	.116	.167	.218	.253	.324
tal.....	2.991	3.675	4.268	4.806	5.399	6.985

GE QUANTITY OF FOOD CONSUMED BY URBAN WORKMEN'S FAMILIES
RTING IN EACH CLASSIFIED INCOME GROUP FOR A REPRESENTATIVE
C, 1906-7.

Items.	Average quantity consumed by families reporting weekly incomes of—					
	Under \$4.87.	\$4.87 or under \$6.08.	\$6.08 or under \$7.30.	\$7.30 or under \$8.52.	\$8.52 or under \$9.73.	\$9.73 or over
nd flour.....pounds..	21.99	23.33	25.05	26.06	29.83	38.21
ef, pork, mutton, veal)....do....	3.14	3.30	3.83	4.54	5.19	6.85
.....do.....	1.25	1.55	1.68	2.07	2.20	2.92
.....do.....	.55	.70	.70	.75	.84	1.01
sh.....pints..	8.76	11.09	12.30	12.83	14.45	16.10
.....number..	4.20	7.40	9.20	10.20	11.60	14.40
.....pounds..	.35	.42	.46	.62	.60	.77
.....do.....	.55	.90	1.12	1.37	1.48	1.87
.....do.....	28.13	25.57	23.96	23.81	24.63	33.55
.....do.....	.49	.64	.73	.77	.86	1.12
.....do.....	1.81	1.83	1.96	1.98	2.14	2.67

proportion of the weekly income spent on food by the families
rman urban workmen is brought out in the statement following:

ORTION OF WEEKLY INCOME SPENT ON FOOD BY URBAN WORKMEN'S
FAMILIES.

Items.	Percentage of income spent on food by families reporting weekly incomes of—					
	Under \$4.87.	\$4.87 or under \$6.08.	\$6.08 or under \$7.30.	\$7.30 or under \$8.52.	\$8.52 or under \$9.73.	\$9.73 or over.
d (excluding beer).....	68.7	64.5	62.3	59.2	57.7	56.3
including bacon and fish).....	22.2	19.3	18.6	18.8	18.4	18.4

From the average quantity of food consumed weekly by workmen's families, on the basis of 5,046 family budgets, and from information obtained from other sources, the following are the quantities of the selected commodities assumed to be consumed by a German working-class family in a normal week:

Coffee.....	pound..	$\frac{1}{2}$	Flour, wheat.....	pounds..	2
Sugar, granulated.....	pounds..	2	Bread.....	do....	25
Bacon.....	pound..	$\frac{3}{4}$	Milk.....	quarts..	6 $\frac{1}{2}$
Cheese.....	do....	$\frac{1}{2}$	Beef.....	pounds..	2 $\frac{1}{2}$
Butter.....	pounds..	1 $\frac{1}{2}$	Pork.....	do....	1 $\frac{1}{2}$
Eggs.....	number..	10	Coal.....	hundredweight..	1 $\frac{1}{2}$
Potatoes.....	pounds..	26			

The predominant prices in each town, as ascertained for the various articles, are weighted in accordance with the above quantities, the total expenditure so obtained being expressed as a percentage of the corresponding total as compiled from prices in Berlin. The following table shows, in descending order, the price index numbers thus constructed for the various towns:

RELATIVE LEVEL OF PRICES IN SPECIFIED GERMAN TOWNS AS COMPARED WITH BERLIN.

Town.	Index number.	Town.	Index number.	Town.	Index number.
Barmen.....	110	Dusseldorf.....	102	Essen.....	98
Mannheim.....	109	Elberfeld.....	102	Zwickau.....	98
Mülhausen.....	109	Plauen.....	102	Oschersleben.....	98
Stuttgart.....	108	Königsberg.....	101	Stassfurt.....	98
Munich.....	107	Brunswick.....	101	Magdeburg.....	98
Nuremberg.....	107	Solingen.....	101	Hamburg-Altona.....	98
Remscheid.....	105	Aschaffenburg.....	101	Danzig.....	98
Bremen.....	105	Leipzig.....	101	Bochum.....	98
Chemnitz.....	105	Crefeld.....	100	Dortmund.....	98
Dresden.....	103	Berlin.....	100	Breslau.....	98
Aix-la-Chapelle.....	103	Stettin.....	99	Königshütte.....	98

From the foregoing it is seen that there are no less than 19 out of the 33 towns which have a prices index number higher than Berlin. The total difference between the highest and the lowest towns is 24 points, as contrasted with 72 points in the case of rents. However, if Königshütte (whose index number for prices is low) be excluded, the maximum difference in price levels is only 15 points.

RENTS AND PRICES COMBINED.

The presentation following gives the index numbers for each of the 33 specified towns in Germany for that portion of the cost of living which is due to expenditure on food and fuel and on housing accommodation. As the amount which has to be expended on food, etc., is considerably greater than that which has to be spent on rent, a weight of 4 has been given to prices and a weight of 1 to rent.

FIVE LEVEL OF RENT AND PRICES COMBINED IN 33 SPECIFIED TOWNS OF GERMANY.

Town.	Index number.	Town.	Index number.	Town.	Index number.
art.	106	Dresden	93	Dortmund	90
eim	100	Königsberg	93	Stettin	88
	100	Aix-la-Chapelle	93	Brunswick	88
n	99	Elberfeld	93	Bochum	88
l	96	Solingen	93	Danzig	87
dorf	97	Chemnitz	92	Breslau	87
isen	97	Plauen	92	Magdeburg	86
berg	96	Essen	92	Zwickau	86
heid	95	Leipzig	91	Stassfurt	85
n	94	Hamburg-Altona	91	Oschersleben	84
lenburg	94	Crefeld	90	Königshütte	78

THE GERMAN EMPIRE AND GREAT BRITAIN COMPARED.

the difficulties in the way of any complete comparison of the five prices ruling for similar commodities in England and in Germany, so far as they affect the expenditure of the working classes of two countries, are sufficiently obvious from what has been said respecting the diversity of national habits and tastes. Neglecting, however, such differences, the predominant prices paid by the work-classes of the two countries for commodities quoted in both were as follows:

FIVE LEVEL PRICES OF COMMODITIES IN TOWNS OF ENGLAND AND WALES AND OF GERMANY, IN OCTOBER, 1905, COMPARED.

Commodity.	Unit.	Predominant retail prices, October, 1905.		Ratio of mean predominant price in Germany to mean predominant price in England, taken as 100.
		England and Wales.	Germany.	
granulated	1 pound	\$0.04	\$0.041-\$0.05	119
	do.	.27	.26 .30	105
es	7 pounds	\$0.05-.07	.041-.06	88
	do.	.16-.20	.23-.28	140
	1 quart	.06-.08	.05-.05½	75
	1 pound	a. 15-.17 b. 10-.12	.16-.18	122
	do.	a. 15-.18 b. 08-.10	.16-.20	137
	do.	.15-.17	.18-.22	123
	do.	.14-.18	.18-.22	123
	1 cwt.	.19-.24	.22-.32	124
n oil	1 gallon	.14-.16	.19-.22	135

a British or home killed.

b Foreign or colonial.

The arithmetic mean of the above numbers may be taken as a high index to the relative price levels of the two countries, for commodities common to both, and is found to be 117 for Germany as compared with 100 for England.

It does not follow, however, that this ratio fairly represents relative prices paid in the two countries for the necessities of existence. In the United Kingdom report the price levels of different towns were compared by the amount required to purchase the groceries, meat, and coal in an approximate average workingman's budget. In order to furnish a similar comparison in the present case the following table is given showing relatively how much an average British workingman would have to pay if he went to live in Germany and purchased the same kinds of food in the same quantities as he had previously used in England. The table shows that his expenditure would be increased in the ratio of 100 to 1

COST OF THE AVERAGE BRITISH WORKINGMAN'S WEEKLY BUDGET (EXCLUDING TEA AND COFFEE) AT THE PREDOMINANT PRICES PAID BY THE WORKING CLASSES OF ENGLAND AND WALES AND OF GERMANY, IN OCTOBER, 1905.

Article.	Quantity in average British budget.	Predominant prices in October, 1905, in—		Cost of quantities in British budget	
		England and Wales.	Germany.	England and Wales.	Germany.
Sugar.....	5½ pounds..	\$0.041 per pound.....	\$0.046 to \$0.051 per pound	\$0.218	\$
Bacon.....	1½ pounds..	\$0.142 to \$0.183 per pound	\$0.177 to \$0.223 per pound	.243	
Cheese.....	½ pound....	\$0.142 per pound.....	\$0.101 to \$0.132 per pound	.107	
Butter.....	2 pounds...	\$0.289 per pound.....	\$0.284 to \$0.299 per pound	.537	
Potatoes.....	17 pounds..	\$0.051 to \$0.071 per 7 pounds.	\$0.046 to \$0.061 per 7 pounds.	.147	
Flour (wheat)....	10 pounds..	\$0.162 to \$0.203 per 7 pounds.	\$0.233 to \$0.279 per 7 pounds.	.259	
Bread (wheat, in England)	22 pounds..	\$0.091 to \$0.112 per 4 pounds.		.558	
Equivalent wheat flour in Germany.	22 pounds..		\$0.233 to \$0.279 per 7 pounds.		
Milk.....	5 quarts....	\$0.061 to \$0.081 per quart.	\$0.051 to \$0.056 per quart.	.355	
Beef.....	4½ pounds..	\$0.137 per pound.....	\$0.157 to \$0.177 per pound	.619	
Pork.....	½ pound....	\$0.152 to \$0.172 per pound	\$0.177 to \$0.223 per pound	.081	
Mutton.....	1½ pounds..	\$0.129 per pound.....	\$0.157 to \$0.198 per pound	.193	
Coal.....	2 cwt.....	\$0.193 to \$0.243 per cwt.	\$0.218 to \$0.324 per cwt.	.436	
Total.....				3.753	
Index number....				100	

On the other hand, the German workingman going to live in England would not reduce his expenditures for food in as high a ratio as 118 to 100, for his purchases as shown in the following table are entirely different in quantity from the British workingman's, and in some cases, notably potatoes and milk, he buys more of articles which are dearer in England and Wales than in Germany. The table shows that his expenditure would be decreased in the ratio of 108 to 100.

COST OF THE AVERAGE GERMAN WORKINGMAN'S WEEKLY BUDGET (EXCLUDING TEA AND COFFEE) AT THE PREDOMINANT PRICES PAID BY THE WORKING CLASSES OF ENGLAND AND WALES AND OF GERMANY, IN OCTOBER, 1905.

Article.	Quantity in average German budget.	Predominant prices in October, 1905, in—		Cost of quantity in German budget in—	
		England and Wales.	Germany.	England and Wales.	Germany.
Sugar.....	2 pounds...	\$0.041 per pound.....	\$0.046 to \$0.051 per pound.	\$0.081	\$0.096
Bacon.....	$\frac{1}{2}$ pound....	\$0.142 to \$0.183 per pound.	\$0.177 to \$0.223 per pound.	.122	.152
Cheese.....	$\frac{1}{2}$ pound....	\$0.142 per pound.....	\$0.101 to \$0.132 per pound.	.071	.061
Butter.....	1 $\frac{1}{2}$ pounds..	\$0.269 per pound.....	\$0.264 to \$0.299 per pound.	.335	.350
Potatoes.....	26 pounds..	\$0.051 to \$0.071 per 7 pounds.	\$0.046 to \$0.061 per 7 pounds.	.228	.198
Flour (wheat)....	2 pounds....	\$0.162 to \$0.203 per 7 pounds.	\$0.233 to \$0.279 per 7 pounds.	.051	.071
Bread (wheat, in England).	25 pounds..	\$0.091 to \$0.112 per 4 pounds.		.634	
Bread (wheat and rye in Germany).	25 pounds..		\$0.096 to \$0.132 per 4 pounds.		.715
Milk.....	6 $\frac{1}{2}$ quarts..	\$0.061 to \$0.081 per quart.	\$0.051 to \$0.056 per quart.	.461	.345
Beef.....	2 $\frac{1}{2}$ pounds..	\$0.137 per pound.....	\$0.157 to \$0.177 per pound.	.299	.370
Pork.....	1 $\frac{1}{2}$ pounds..	\$0.152 to \$0.172 per pound.	\$0.177 to \$0.223 per pound.	.259	.319
Coal.....	1 $\frac{1}{2}$ cwt.....	\$0.193 to \$0.243 per cwt..	\$0.218 to \$0.324 per cwt..	.324	.406
Total.....				2.865	3.083
Index number..				100	108

The differences in the amounts consumed and the sums spent for the chief commodities by workingmen's families receiving certain specified weekly incomes are brought out in the two following statements:

RATIOS OF THE QUANTITIES OF CERTAIN ARTICLES OF FOOD CONSUMED BY WORKMEN'S FAMILIES IN GERMANY, RECEIVING SPECIFIED WEEKLY INCOMES, TO THE QUANTITIES OF THE SAME ARTICLES CONSUMED BY WORKMEN'S FAMILIES IN GREAT BRITAIN WITH CORRESPONDING INCOMES.

[Quantities in Great Britain=100.]

Items.	Families receiving weekly incomes of—		
	\$6.08 or under \$7.30.	\$7.30 or under \$8.52.	\$8.52 or under \$9.73.
Bread and flour.....	84	89	99
Meat and fish.....	88	90	95
Eggs.....	106	90	97
Milk, fresh.....	159	130	140
Cheese.....	66	78	78
Butter, margarin, lard, etc.....	113	115	120
Potatoes.....	151	148	155
Sugar.....	42	41	41

RATIOS OF THE AMOUNTS SPENT ON CERTAIN ARTICLES OF FOOD CONSUMED BY WORKMEN'S FAMILIES IN GERMANY, RECEIVING SPECIFIED WEEKLY INCOMES, TO THE AMOUNTS SPENT ON THE SAME ARTICLES BY WORKMEN'S FAMILIES IN GREAT BRITAIN WITH CORRESPONDING INCOMES.

[Expenditure in Great Britain=100.]

Items.	Families receiving weekly incomes of—		
	\$6.06 or under \$7.30.	\$7.30 or under \$8.52.	\$8.52 or under \$9.73.
Bread and flour.....	87	92	102
Meat and fish.....	103	100	106
Eggs.....	88	77	79
Milk, fresh.....	132	110	118
Cheese.....	68	75	88
Butter, margarin, lard, etc.....	115	112	117
Potatoes.....	105	100	115
Vegetables and fruit.....	114	93	87
Farinaceous foods (other than bread and flour).....	85	71	83
Tea, coffee, cocoa, etc.....	66	65	67
Sugar.....	47	47	47

RATES OF WAGES.

THE GERMAN EMPIRE.

An inquiry into the rates of wages prevailing in October, 1905, in the various towns canvassed was made as complementary to the one into rents and prices. In order to facilitate comparison, four industries were selected which were represented in all the towns with few exceptions, and in which the standard rates of wages could be ascertained with accuracy. These industries were the building trades, engineering, printing, and municipal employment; and the rates in Berlin were again taken as the base for the index numbers. The rates referred to are in all cases weekly rates.

The following table, which is exclusive of Berlin, shows the predominant range of weekly wages for each of the occupations in the selected standard industries in towns of Germany:

RATES OF WAGES IN TOWNS OF GERMANY, OCTOBER, 1905.

Industry and occupation.	Number of towns included.	Predominant range of weekly wages, October, 1905.	Number of towns in which the mean wage for the given occupation was—		
			Within the predominant range.	Below the predominant range.	Above the predominant range.
BUILDING TRADES.					
Bricklayers and masons.....	32	\$6.55-\$7.60	19	7	6
Carpenters.....	32	6.55- 7.60	16	8	7
Joiners and cabinetmakers.....	30	5.84- 6.57	16	7	7
Plumbers.....	28	5.84- 6.93	20	4	4
Stucco workers.....	26	8.03- 8.76	13	8	5
Painters.....	29	5.84- 7.22	25	1	3
Laborers.....	32	4.74- 5.84	18	7	7
ENGINEERING TRADES.					
Molders.....	21	7.30- 8.27	10	6	5
Fitters.....	28	6.33- 7.79	18	6	4
Turners.....	28	6.57- 8.03	17	6	5
Smiths.....	23	6.93- 8.03	12	6	5
Pattern makers.....	28	6.20- 7.30	15	6	7
Laborers.....	28	4.38- 5.35	22	3	3

RATES OF WAGES IN TOWNS OF GERMANY, OCTOBER, 1905—Concluded.

Industry and occupation.	Number of towns included.	Predominant range of weekly wages, October, 1905.	Number of towns in which the mean wage for the given occupation was—		
			Within the predominant range.	Below the predominant range.	Above the predominant range.
PRINTING TRADE.					
sitors, machine tenders, and men.....	22	\$6.02-\$6.31	21	6	5
MUNICIPAL EMPLOYMENT.					
akers.....	30	4.38- 5.25	18	6	6
weepers.....	26	4.18- 5.11	18	4	4
akers.....	29	5.84- 7.30	22	3	4
orers.....	29	4.38- 5.47	23	3	3
works laborers.....	21	4.38- 5.25	16	6	7

the following table is shown the predominant rate of weekly wages for skilled men for each of the specified occupations in the building, engineering, and printing trades in 12 towns of Germany, divided as to certain geographical districts:

RATES OF WEEKLY WAGES IN 12 SELECTED TOWNS OF GERMANY, OCTOBER, 1905.

Industry and occupation.	Berlin.	Breslau.	Danzig.	Dresden.	Düsseldorf.	Essen.
BUILDING TRADES.						
Painters and masons.....	\$9.51	\$7.30	\$7.02	\$7.20	\$7.89	\$7.60
Painters.....	9.51	7.30	6.71	7.20	8.31	7.32
Painters and cabinetmakers.....	7.77	5.58	.....	7.20	6.71	6.57
Painters.....	7.81	6.57	5.56	\$6.57- 6.81	5.84	\$5.78- 6.29
Painters workers.....	10.22	6.57	.....	7.58	8.76	8.62
Painters.....	7.16	5.84	.....	6.69	6.57	6.71- 7.02
ENGINEERING TRADES.						
Painters.....	\$8.27- 9.45	.....	.....	7.30- 8.52	9.00	8.76- 9.96
Painters.....	7.30- 8.03	7.60	\$5.11- 5.43	6.08- 6.57	\$7.30- 8.52	7.30- 9.49
Painters.....	9.06- 9.45	8.27	5.43	6.57- 7.30	8.03- 8.76	7.91- 9.49
Painters.....	7.30- 7.58	8.03	5.43- 5.56	.....	8.03- 8.76	7.30- 8.76
Painters makers.....	8.76- 9.00	7.30	5.72- 6.08	6.57- 7.30	7.30- 8.03	6.57
PRINTING TRADE.						
Compositors, machine pressmen.....	6.85	6.31	6.02	6.43	6.16	6.31
Compositors.....	8.56	7.87	7.52	8.05	7.71	7.87
Compositors.....	8.90	8.19	7.83	8.35	7.81	8.19

Industry and occupation.	Hamburg-Altona.	Leipzig.	Magdeburg.	Munich.	Nuremberg.	Stuttgart.
BUILDING TRADES.						
Painters and masons.....	\$9.77	\$7.89	\$7.22	\$7.58	\$6.93	\$6.61
Painters.....	9.77	7.89	7.22	7.16	6.93	6.61
Painters and cabinetmakers.....	7.10	7.75	6.20	6.57	5.78	5.45
Painters.....	7.81	6.57	.....	7.22	6.12	6.12
Painters workers.....	\$10.22-11.68	.....	.....	9.43	\$7.48- 9.02	7.30
Painters.....	7.89	7.18	6.57	5.92	6.31	\$6.31- 6.57
ENGINEERING TRADES.						
Painters.....	6.57- 7.30	.....	\$8.27- 9.00	\$6.08- 7.30	7.48	8.76
Painters.....	7.30- 8.76	\$7.30- 8.03	6.57- 8.03	5.84- 6.81	6.08- 7.91	5.96- 6.81
Painters.....	7.30- 8.76	7.79- 8.03	7.30- 8.76	6.33- 7.30	6.81- 8.46	6.57- 6.81
Painters.....	7.30- 8.76	8.03- 8.52	7.30- 8.03	.....	.....	7.89
Painters makers.....	7.30- 8.76	6.57- 8.27	6.57- 7.54	6.81- 7.79	5.92- 6.81	6.33- 7.06
PRINTING TRADE.						
Compositors, machine pressmen.....	6.85	6.57	6.02	6.43	6.31	6.43
Compositors.....	8.56	8.21	7.52	8.05	7.87	8.05
Compositors.....	8.90	8.54	7.83	8.35	8.19	8.35

In the table following index numbers are given comparing (w Berlin as the base = 100) the weekly rates of wages of workmen in four specified industries in the different towns of Germany, towns being arranged in seven geographical groups:

RELATIVE LEVEL OF WEEKLY WAGES IN GERMAN TOWNS AS COMPARED WITH BERLIN.

Geographical groups.	Building.		Engineering.		Print- ing.	Mul- tip- les
	Skilled men.	Labor- ers.	Skilled men.	Labor- ers.	Skilled men.	
Berlin	100	100	100	100	100	
Central Germany:						
Magdeburg	81	89	90	99	88	
Brunswick	89	89	91	89	92	
Stassfurt	71	76	80	91	80	
Oschersleben	91	67	83	89	80	
Rhineland Westphalia (textile towns):						
Elberfeld	89	94			88	
Barmen	82	89	91	96	88	
Aix-la-Chapelle	79	70	96	87	88	
Crefeld	78	85	90	101	88	
Rhineland Westphalia (hardware towns):						
Dusseldorf	85	103	98	103	90	
Essen	83	99	99	99	92	
Dortmund	84	101	90	99	90	
Bochum	83	96	87	96	88	
Remscheid	83	85	97	108	88	
Solingen	87	103	88	89	88	
South Germany:						
Munich	85	89	83	89	94	
Nuremberg	78	73	88	85	92	
Stuttgart	75	81	84	83	94	
Mannheim	81	89	96	101	90	
Mülhausen	69	76	67	81	80	
Aschaffenburg	71	76	65	83	80	
Saxony:						
Dresden	83	90	83	106	94	
Leipzig	88	95	95	96	96	
Chemnitz	78	80	73	71	90	
Plauen	81	77			88	
Zwickau	68	66	65	78	86	
Silesia:						
Breslau	76	78	95	88	92	
Königshütte	65	58			84	
Baltic ports:						
Stettin	79	67	71	83	90	
Königsberg	80	90			88	
Danzig	74	72	67	85	88	
North Sea ports:						
Hamburg-Altona	102	125	97	96	100	
Bremen	89	100	79	89	92	

RELATION OF RATES OF WAGES TO RENTS AND PRICES.

The presentation which follows shows for each of the geographical groups of Germany the mean index numbers for rent and prices, rent and prices combined, together with the mean index numbers the weekly rates of wages of skilled men in the building, engineering and printing industries. Berlin has been taken as the base (100) each case. In the construction of the index numbers for rent and prices combined, prices have been given a weight of 4 and rent weight of 1.

RELATIVE LEVEL OF RENT AND PRICES, OF RENT AND PRICES COMBINED, AND OF WEEKLY WAGES OF SKILLED MEN IN 7 GEOGRAPHICAL GROUPS OF GERMANY AS COMPARED WITH BERLIN.

Geographical groups.	Number of towns included.	Mean index numbers.					
		Rent and prices.			Wages (skilled men).		
		Rent.	Prices.	Rent and prices combined.	Building.	Engineering.	Printing.
Berlin.....		100	100	100	100	100	100
Central Germany.....	4	35	99	86	83	86	85
Rhineland Westphalia:							
Textile towns.....	4	55	104	94	82	^a 92	88
Hardware towns.....	6	64	100	93	84	93	89
South Germany.....	6	65	107	99	77	81	88
Saxony.....	5	47	102	91	80	^a 79	91
Silesia.....	2	52	91	83	71	^a 95	88
Baltic ports.....	3	52	99	89	78	^a 69	89
North Sea ports.....	2	59	101	93	96	88	96

^a The number of towns represented in the construction of this index number is less than the total number included within the geographical group.

If the mean of the wages index numbers in each group for the three industries (building, engineering, and printing) be taken, and the means so obtained divided by the index numbers for rent and prices combined, a comparison of the average level of "real" wages in the selected occupations may be made, viz, the money wages expressed in terms of their purchasing capacity (as shown in the index numbers of rent and prices combined). The results are shown in the table which follows:

AVERAGE LEVEL OF "REAL" WAGES AND LEVEL OF RENT AND PRICES COMBINED IN 7 GEOGRAPHICAL GROUPS OF GERMANY, AS COMPARED WITH BERLIN.

Geographical groups.	Number of towns included.	Mean index numbers.		
		Rent and prices combined.	Wages of skilled men in building, engineering, and printing trades.	Approximate relative level of "real" wages.
Berlin.....		100	100	100
Central Germany.....	4	86	85	99
Rhineland Westphalia:				
Textile towns.....	4	94	87	93
Hardware towns.....	6	93	89	96
South Germany.....	6	99	82	83
Saxony.....	5	91	83	91
Silesia.....	2	83	85	102
Baltic ports.....	3	89	79	89
North Sea ports.....	2	93	93	100

THE GERMAN EMPIRE AND GREAT BRITAIN COMPARED.

The predominant rates of weekly wages paid in the building, engineering, and printing trades of Germany (industries which were found in all the towns investigated) are here brought into contrast with the rates of weekly wages paid in similar trades in Great Britain.

RATES OF WAGES IN TOWNS OF ENGLAND AND WALES AND OF GERMANY
OCTOBER, 1905, COMPARED.

Industry and occupation.	Predominant range of weekly wages, October, 1905.		Ratio of predominant wage in many mean | domin wage in land, to as 100
	England and Wales.	Germany.	
BUILDING TRADES.			
Bricklayers.....	\$9.12-\$9.85	\$6.55-\$7.60	
Masons.....	9.04- 9.57		
Carpenters.....	8.80- 9.57		
Plumbers.....	8.60- 9.67		
Painters.....	7.66- 9.12		
Laborers.....	5.72- 6.57	4.74- 5.84	
ENGINEERING TRADES.			
Fitters.....	7.79- 8.76	6.33- 7.79	
Turners.....	7.79- 8.76	6.57- 8.03	
Smiths.....	7.79- 8.76	6.93- 8.03	
Pattern makers.....	8.27- 9.25	6.20- 7.30	
Laborers.....	4.38- 5.35	4.38- 5.35	
PRINTING TRADE.			
Compositors.....	6.81- 8.03	6.02- 6.31	
Arithmetic mean of ratios for all trades			

In the case of the building trades the weekly wages given are both countries, the wages for a full working week in summer. In case of the engineering trades, the English wages are the standard time rates recognized by the unions concerned; the German rates the other hand, are in most cases based on returns of actual earnings and it is consequently doubtful how far the two sets of returns strictly comparable. The standard time rates being often exceeded by actual earnings on piecework, it is probable that the German rates appear somewhat too high relatively to the English. The compositors' rates in both England and Germany are standard rates.

For skilled men in the building trades the German wages are about 75 per cent of the English; for skilled men in the engineering trades about 85 per cent of the English, and for compositors (hand) in printing trade about 83 per cent of the English. Laborers in building trades in Germany earn about 86 per cent of the weekly earnings of the corresponding class in England, while German laborers in the engineering trades have weekly earnings equal to those of English. The arithmetic mean of the ratios for all trades shown in the table indicates that the mean predominant wage in Germany is approximately 83 per cent of that in England and Wales.

As most of the data for Germany are based on the gross earnings before the compulsory deductions on account of insurance have been made, it might at first sight appear that account should be taken of such deductions. In point of fact, however, the deductions from German workman's wages for insurance correspond in part to the

ments of the British workman to his friendly society or sick club for similar benefits, and only differ from these in the former being compulsory. Therefore, there does not seem to be any reason for making a deduction from the predominant German wage rates to make them comparable with the English.

HOURS OF LABOR.

In the table following is presented for the building, engineering, and printing trades a comparison of the average usual hours of labor per week in England and Wales with corresponding data for Germany:

AVERAGE USUAL HOURS OF LABOR PER WEEK IN ENGLAND AND WALES AND IN GERMANY COMPARED.

Industry and occupation.	Average usual hours of labor per week in—		Ratio of average hours of labor in Germany to those in England, taken as 100.
	England and Wales.	Germany.	
BUILDING TRADES.			
Bricklayers and masons.....	52½	59	112
Carpenters.....	53	59	111
Plumbers.....	53½	58	108
Painters.....	53½	59	110
Laborers.....	52½	59	112
ENGINEERING TRADES.			
Fitters.....	53	59½	112
Turners.....	53	59½	112
Smiths.....	53	59½	112
Pattern makers.....	53	59½	112
Laborers.....	53	59½	112
PRINTING TRADE.			
Compositors.....	52½	54	103
Arithmetic mean of ratios for all trades.....			111

It will be seen from the foregoing, except in the case of the printing trade, which is a highly organized one in Germany, and for which the working hours have been fixed by agreement at the relatively low level of 54 per week, the hours of labor in Germany are from 8 to 12 per cent higher than in England; or, on the average of the above trades, hours in Germany exceed those in England by rather more than 10 per cent.

SUMMARY OF CONCLUSIONS.

A summary of the conclusions derived from the investigation follows:

Rents.—Net rents of working-class dwellings in Germany are to gross rents (including rates) of working-class dwellings in England as 101 to 100.

Net rents of working-class dwellings in Germany are to net rents of working-class dwellings in England (excluding that portion of English rents representing local taxation) as 123 to 100.

Retail prices.—On the basis of the ordinary English standard of consumption the expenditure of the workman on food and fuel in Germany is to his expenditure in England as 118 to 100.

If the expenditure on rent be combined with that on food and fuel (the expenditure on the latter items being taken at four times the former) the results are:

The expenditure on food, fuel, and rent of the workman in Germany, on the same basis as above, would be to that of the same workman in England, on the same items but including local taxation, as 115 to 100.

The expenditure on food, fuel, and rent of the workman in Germany would be to that of the same workman in England, on the same items, exclusive of local taxation, as 119 to 100.

It appears, therefore, that an English workman in Germany, and living as far as possible as he had been accustomed to live in England, would find his expenditure on rent (exclusive of local taxation), food, and fuel increased by some 19 per cent (or roughly by one-fifth).

Wages and hours of labor.—Weekly money wages of the working classes in German towns are to weekly wages of the same classes in England, in the trades selected for comparison, as 83 to 100.

Average usual working hours per week of the working classes in German towns are to those of the same classes in England, in the trades selected for comparison, as 111 to 100.

Consequently the hourly rates of money wages for the working classes in German towns are to those of the same classes in England, for the trades selected for comparison, as 75 to 100.

Thus on the above basis the German rate of money wages per hour is about three-fourths of the English rate, and the cost of rent, food, and fuel nearly one-fifth greater than in England.

CHANGES IN RETAIL PRICES AND RATES OF WAGES BETWEEN OCTOBER, 1905, AND MARCH, 1908.

It will be remembered that the returns upon which the index numbers referred to in the foregoing sections are based related to October, 1905, and it will be of interest to note what changes have occurred since that date. For this purpose supplementary investigations were made, in April, 1908, in regard to the movement of prices in six representative towns (Berlin, Aix-la-Chapelle, Chemnitz, Magdeburg, Mannheim, and Mülhausen) with a total population of about 3,000,000. Information was also obtained, so far as possible, in regard to the movement of wages during the same period.

The upward movement in the price of bread which set in during 1905 continued, with a certain break toward the end of 1906, until the beginning of 1908, since when there has been a slight fall in price in some of the towns. The following table summarizes in English

units the prices of rye bread of various grades in October, 1905, and in February or March, 1908, for the six representative towns:

PRICE OF RYE BREAD IN SIX REPRESENTATIVE GERMAN TOWNS. OCTOBER, 1905, AND FEBRUARY OR MARCH, 1908.

Town.	Price of rye bread per 4 pounds.		Per cent of increase.
	October, 1905.	February or March, 1908.	
Aix-la-Chapelle.....	\$0.086	\$0.107	24
Berlin.....	.112	.152	36
Chemnitz.....	.096	.127	32
Magdeburg.....	.101	.127	25
Mannheim.....	.107	.122	14
Mülhausen.....	.101	.112	10

The rise in price thus ranges from 10 to 36 per cent, or an average advance of 23 per cent since October, 1905.

Since October, 1905, in the six towns under consideration, the movements in the prices of beef were comparatively small and very irregular. On the whole the highest level was reached toward the end of 1906, since which time, in spite of marked fluctuations in some cases, prices generally have tended downward. In the case of pork, on the other hand, there has been a considerable fall in prices, the greater part of this having taken place since the autumn of 1906. The average fall has been 15 per cent. Comparatively little information was obtained in regard to the movement in the prices of groceries. So far as it was possible to judge from the few returns obtained, prices appear to have undergone little change.

There has been on the whole a marked upward movement in the predominant weekly rates of wages or earnings between October, 1905, and March, 1908—a period of great industrial activity and expansion in all the towns and in all the industries investigated.

The following table shows the percentage changes in the predominant weekly earnings in various occupations of the engineering trades in five towns between October, 1905, and March, 1908:

PER CENT OF INCREASES IN PREDOMINANT WEEKLY WAGES IN THE ENGINEERING TRADES IN FIVE TOWNS BETWEEN OCTOBER, 1905, AND MARCH, 1908.

Occupation.	Berlin.	Chemnitz.	Magdeburg.	Mannheim.	Mülhausen.	Average.
Molders.....	5.4	2.8	13.7	14.9	9.1	9.2
Fitters.....	7.9	2.8	13.1	13.4	7.0	8.8
Turners.....	4.5	2.8	11.5	15.0	7.1	8.2
Smiths.....	5.9	2.7	11.6	18.0	4.6	8.6
Pattern makers.....	1.4	2.7	12.5	14.8	5.5	7.4
Laborers.....	8.0	3.0	11.0	6.4	5.2	6.7

In the building trades the general movement has likewise been upward, as is shown by the following table, which gives the percentage changes for certain occupations of the industry in five towns between October, 1905, and March, 1908:

PER CENT OF INCREASES IN PREDOMINANT WEEKLY WAGES IN THE BUILDING TRADES IN FIVE TOWNS BETWEEN OCTOBER, 1905, AND MARCH, 1908.

Occupation.	Aix-la-Chapelle.	Berlin.	Chemnitz.	Magdeburg.	Mannheim.	Average.
Bricklayers and masons.....	a 3.4	2.8	11.5	3.9	8.1	4.6
Carpenters.....	9.4	2.8	11.5	3.9	.....	6.9
Painters.....	7.3	21.2	.....	3.6	13.6	9.1
Laborers.....	13.0	2.7	17.1	7.3	.....	8.0

a Decrease.

In the printing trade the wages of both hand and machine compositors have been increased by the revised national agreement which came into force in January, 1907, and will remain in operation until December 31, 1911. The effect of the new agreement amounts (in the towns considered) to an increase of 11 per cent in the rates of wages.

Considering the rise in wages in certain occupations of the textile industries and in the wages of municipal employees, if the data for all the above-mentioned trades be taken together, an estimate of a rise of 8 or 9 per cent in the general level of weekly wages and earnings between October, 1905, and March, 1908 (that is, in a period marked until near its close by great industrial activity), may be regarded as approximately accurate.

This rise in wages has been accompanied by some tendency to reduction of hours, especially where the normal hours previously exceeded 57 to 60 per week. In the printing trade hours remained unchanged, having been fixed by agreement at the universal level of 54 per week.

BRITISH OLD AGE PENSIONS ACT OF 1908.

As the result of several years of effort and deliberation, Parliament at its late session passed an Old Age Pensions Act, the royal assent having been given August 1. A proposition to limit the operation of the law tentatively to a period of years was rejected, and it is fair to assume that the new principle involved is permanently incorporated into the administrative policy of Great Britain. The text in full is given below:

SUBJECT-MATTER OF SECTIONS.

- Section 1: General provision as to old age pensions.
- Section 2: Conditions under which pensions may be allowed.
- Section 3: Disqualifications.
- Section 4: Method of computing means or income of claimants.
- Section 5: Payment of pensions.
- Section 6: Pensions inalienable.
- Section 7: Determination of claims and questions.
- Section 8: Committees, officers, etc.
- Section 9: False statements, misrepresentations, etc.
- Section 10: Regulations made by whom; provision for expenses.
- Section 11: Application of act to Scotland, Ireland, and the Scilly Islands.
- Section 12: Date when act takes effect.
- Schedule: Weekly rates of payment.

AN ACT to provide for old age pensions. [1st August, 1908.]

*Be it enacted by * * * Parliament assembled, and by the authority of the same, as follows:*

1.—(1) Every person in whose case the conditions laid down by this act for the receipt of an old age pension (in this act referred to as statutory conditions) are fulfilled, shall be entitled to receive such a pension under this act so long as those conditions continue to be fulfilled, and so long as he is not disqualified under this act for the receipt of the pension.

(2) An old age pension under this act shall be at the rate set forth in the schedule to this act.

(3) The sums required for the payment of old age pensions under this act shall be paid out of moneys provided by Parliament.

(4) The receipt of an old age pension under this act shall not deprive the pensioner of any franchise, right, or privilege, or subject him to any disability.

2.—The statutory conditions for the receipt of an old age pension by any person are—

(1) The person must have attained the age of seventy;

(2) The person must satisfy the pension authorities that for at least twenty years up to the date of the receipt of any sum on account of a pension he has been a British subject, and has had his residence, as defined by regulations under this act, in the United Kingdom;

(3) The person must satisfy the pension authorities that his yearly means as calculated under this act do not exceed thirty-one pounds ten shillings [\$153.29].

3.—(1) A person shall be disqualified for receiving or continuing to receive an old age pension under this act, notwithstanding the fulfillment of the statutory conditions—

(a) While he is in receipt of any poor relief (other than relief excepted under this provision), and, until the thirty-first day of December nineteen hundred and ten unless Parliament otherwise determines, if he has at any time since the first day of

January nineteen hundred and eight received, or hereafter receives, any such relief: *Provided* That for the purposes of this provision—

(i) any medical or surgical assistance (including food or comforts) supplied by or on the recommendation of a medical officer; or

(ii) any relief given to any person by means of the maintenance of any dependent of that person in any lunatic asylum, infirmary, or hospital, or the payment of any expenses of the burial of a dependent; or

(iii) any relief (other than medical or surgical assistance, or relief hereinbefore specifically exempted) which by law is expressly declared not to be a disqualification for registration as a parliamentary elector, or a reason for depriving any person of any franchise, right, or privilege;

shall not be considered as poor relief:

(b) If, before he becomes entitled to a pension, he has habitually failed to work according to his ability, opportunity, and need, for the maintenance or benefit of himself and those legally dependent upon him:

Provided That a person shall not be disqualified under this paragraph if he has continuously for ten years up to attaining the age of sixty, by means of payments to friendly, provident, or other societies, or trade unions, or other approved steps, made such provision against old age, sickness, infirmity, or want or loss of employment as may be recognized as proper provision for the purpose by regulations under this act, and any such provision, when made by the husband in the case of a married couple living together, shall as respects any right of the wife to a pension, be treated as provision made by the wife as well as by the husband:

(c) While he is detained in any asylum within the meaning of the Lunacy Act, 1890, or while he is being maintained in any place as a pauper or criminal lunatic:

(d) During the continuance of any period of disqualification arising or imposed in pursuance of this section in consequence of conviction for an offense.

(2) Where a person has been before the passing of this act, or is after the passing of this act, convicted of any offense, and ordered to be imprisoned without option of a fine or to suffer any greater punishment, he shall be disqualified for receiving or continuing to receive an old age pension under this act while he is detained in prison in consequence of the order, and for a further period of ten years after the date on which he is released from prison.

(3) Where a person of sixty years of age or upwards having been convicted before any court is liable to have a detention order made against him under the Inebriates Act, 1898, and is not necessarily, by virtue of the provisions of this act, disqualified for receiving or continuing to receive an old age pension under this act, the court may, if they think fit, order that the person convicted be so disqualified for such period, not exceeding ten years, as the court direct.

4.—(1) In calculating the means of a person for the purpose of this act account shall be taken of—

(a) the income which that person may reasonably expect to receive during the succeeding year in cash, excluding any sums receivable on account of an old age pension under this act, that income, in the absence of other means for ascertaining the income, being taken to be the income actually received during the preceding year;

(b) the yearly value of any advantage accruing to that person from the use or enjoyment of any property belonging to him which is personally used or enjoyed by him;

(c) the yearly income which might be expected to be derived from any property belonging to that person which, though capable of investment or profitable use, is not so invested or profitably used by him; and

(d) the yearly value of any benefit or privilege enjoyed by that person.

(2) In calculating the means of a person being one of a married couple living together in the same house, the means shall not in any case be taken to be a less amount than half the total means of the couple.

(3) If it appears that any person has directly or indirectly deprived himself of any income or property in order to qualify himself for the receipt of an old age pension, or for the receipt of an old age pension at a higher rate than that to which he would otherwise be entitled under this act, that income or the yearly value of that property shall, for the purposes of this section, be taken to be part of the means of that person.

5.—(1) An old age pension under this act, subject to any directions of the treasury in special cases, shall be paid weekly in advance in such manner and subject to such conditions as to identification or otherwise as the treasury direct.

(2) A pension shall commence to accrue on the first Friday after the claim for the pension has been allowed, or, in the case of a claim provisionally allowed, on the first Friday after the day on which the claimant becomes entitled to receive the pension.

6.—Every assignment of or charge on and every agreement to assign or charge an old age pension under this act shall be void, and, on the bankruptcy of a person enti-

an old age pension, the pension shall not pass to any trustee or other person on behalf of the creditors.

) All claims for old age pensions under this act and all questions whether the conditions are fulfilled in the case of any person claiming such a pension, whether those conditions continue to be fulfilled in the case of a person in receipt of a pension, or whether a person is disqualified for receiving or continuing to receive a pension, shall be considered and determined as follows:

1) If such claim or question shall stand referred to the local pension committee, the committee shall (except in the case of a question which has been originated by the pension officer and on which the committee have already received his report), in considering the claim or question, refer it for report and inquiry to the pension

officer. The pension officer shall inquire into and report upon any claim or question so referred to him, and the local pension committee shall, on the receipt of the report of the pension officer and after obtaining from him or from any other source if necessary further information as to the claim or question, consider the case and give their opinion upon the claim or question;

2) The pension officer, and any person aggrieved, may appeal to the central pension authority against a decision of the local pension committee allowing or refusing to grant a pension or determining any question referred to them within the time and manner prescribed by regulations under this act, and any claim or question in respect of which an appeal is so brought shall stand referred to the central pension authority, and shall be considered and determined by them:

3) If any person is aggrieved by the refusal or neglect of a local pension committee to consider a claim for a pension, or to determine any question referred to them, that person may apply in the prescribed manner to the central pension authority, and that authority may, if they consider that the local pension committee have refused or neglected to consider and determine the claim or question within a reasonable time, direct the committee to consider and determine the claim or question in the same manner as on an appeal from the decision of the local pension committee.

4) The decision of the local pension committee on any claim or question which is referred to the central pension authority, and the decision of the central pension authority on any claim or question which is so referred to them, shall be final and conclusive.

5) The local pension committee shall be a committee appointed for every urban and rural district, having a population according to the last published census of the time being of twenty thousand or over, and for every county (excluding the city of London and each borough or district), by the council of the borough, district, or county. The persons appointed to be members of a local pension committee need not be members of the council by which they are appointed.

6) A local pension committee may appoint such and so many subcommittees, and may either wholly or partly by the members of the committee as the committee think fit, and a local pension committee may delegate, either absolutely or under such conditions as they think fit, to any such subcommittee any powers and duties which are conferred on the local pension committee under this act.

7) The central pension authority shall be the Local Government Board, and the powers may be exercised through such committee, persons, or person appointed by them as may think fit.

8) Pension officers shall be appointed by the treasury, and the treasury may appoint any number of those officers as they think fit to act for such areas as they direct.

9) Any reference in this act to pension authorities shall be construed as a reference to the pension officer, the local pension committee, and the central pension authority, or any one of them, as the case requires.

10) If for the purpose of obtaining or continuing an old age pension under this act a person either for himself or for any other person, or for the purpose of obtaining or continuing an old age pension under this act for himself or for any other person at a rate more than that appropriate to the case, any person knowingly makes any false statement or false representation, he shall be liable on summary conviction to imprisonment for a term not exceeding six months, with hard labor.

11) It is found at any time that a person has been in receipt of an old age pension under this act while the statutory conditions were not fulfilled in his case or while he was disqualified for receiving the pension, he or, in the case of his death, his personal representative, shall be liable to repay to the treasury any sums paid to him in respect of the pension while the statutory conditions were not fulfilled or while he was disqualified for receiving the pension, and the amount of those sums may be treated as a debt due to the Crown.

10.—(1) The treasury in conjunction with the Local Government Board and with the postmaster-general (so far as relates to the post-office) may make regulations for carrying this act into effect, and in particular—

(a) for prescribing the evidence to be required as to the fulfillment of statutory conditions and for defining the meaning of residence for the purposes of this act; and

(b) for prescribing the manner in which claims to pensions may be made, and the procedure to be followed on the consideration and determination of claims and questions to be considered and determined by pension officers and local pension committees or by the central pension authority, and the mode in which any question may be raised as to the continuance, in the case of a pensioner, of the fulfillment of the statutory conditions, and as to the disqualification of a pensioner; and

(c) as to the number, quorum, term of office, and proceedings generally of the local pension committee and the use by the committee, with or without payment, of any offices of a local authority, and the provision to be made for the immediate payment of any expenses of the committee which are ultimately to be paid by the treasury.

(2) The regulations shall provide for enabling claimants for pensions to make their claims and obtain information as respects old age pensions under this act through the post-office, and for provisionally allowing claims to pensions before the date on which the claimant will become actually entitled to the pension, and for notice being given by registrars of births and deaths to the pension officers or local pension committees of every death of a person over seventy registered by them, in such manner and subject to such conditions as may be laid down by the regulations, and for making the procedure for considering and determining on any claim for a pension or question with respect to an old age pension under this act as simple as possible.

(3) Every regulation under this act shall be laid before each House of Parliament forthwith, and, if an address is presented to His Majesty by either House of Parliament within the next subsequent twenty-one days on which that House has sat next after any such regulation is laid before it, praying that the regulation may be annulled, His Majesty in Council may annul the regulation, and it shall thenceforth be void, but without prejudice to the validity of anything previously done thereunder.

(4) Any expenses incurred by the treasury in carrying this act into effect, and the expenses of the Local Government Board and the local pension committees under this act up to an amount approved by the treasury, shall be defrayed out of moneys provided by Parliament.

11.—(1) In the application of this act to Scotland, the expression "Local Government Board" means the Local Government Board for Scotland; the expression "borough" means royal or parliamentary burgh; the expression "urban district" means police burgh; the population limit for boroughs and urban districts shall not apply; and the expression "Lunacy Act, 1890," means the Lunacy (Scotland) Acts, 1857 to 1900.

(2) In the application of this act to Ireland, the expression "Local Government Board" means the Local Government Board for Ireland; ten thousand shall be substituted for twenty thousand as the population limit for boroughs and urban districts; and the expression "asylum within the meaning of the Lunacy Act, 1890," means a lunatic asylum within the meaning of the Local Government (Ireland) Act, 1898.

(3) In the application of this act to the Isles of Scilly, those isles shall be deemed to be a county and the council of those isles the council of a county.

12.—(1) A person shall not be entitled to the receipt of an old age pension under this act until the first day of January nineteen hundred and nine and no such pension shall begin to accrue until that day.

(2) This act may be cited as the Old Age Pensions Act, 1908.

SCHEDULE.

Means of pensioner.	Rate of pension per week.
Where the yearly means of the pensioner as calculated under this act—	
Do not exceed £21 [\$102.20].....	5s. [\$1.22].
Exceed £21 [\$102.20], but do not exceed £23 12s. 6d. [\$114.97]....	4s. [\$0.97].
Exceed £23 12s. 6d. [\$114.97], but do not exceed £26 5s. [\$127.75]....	3s. [\$0.73].
Exceed £26 5s. [\$127.75], but do not exceed £28 17s. 6d. [\$140.52]....	2s. [\$0.49].
Exceed £28 17s. 6d. [\$140.52], but do not exceed £31 10s. [\$153.29]..	1s. [\$0.24].
Exceed £31 10s. [\$153.29].....	No pension.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

MISSOURI.

Twenty-ninth Annual Report of the Bureau of Labor Statistics of the State of Missouri, for the year ending November 5, 1907. J. C. A. Hiller, Commissioner. xi, 797 pp.

This report consists of four parts, as follows: Part I, Surplus products of counties, Government land in Missouri and increase in land values, population of Missouri, good roads for Missouri, foreign immigration into Missouri during 1906-7, etc., 140 pages; Part II, Manufacturing industries, 1906, 548 pages; Part III, Labor organizations and free employment offices, 76 pages; Part IV, Public utility plants and penal and prison shops, 31 pages.

SURPLUS PRODUCTS, GOVERNMENT LAND, LAND VALUES, AND GOOD ROADS.—During 1906 the 114 counties of the State shipped surplus products aggregating in value \$291,921,946. At the time of report (1907), there were 88,414 acres of land in Missouri subject to homestead or cash entry. In 1907 the assessed valuation of land in the State was \$988,454,851, an increase since 1901 of \$195,829,271. During 1907-8 it is proposed to expend \$2,000,000 in building new highways and improving old ones.

MANUFACTURING INDUSTRIES.—A summary of the returns for 1906, embracing 10,915 establishments in 90 industrial groups, shows a total invested capital of \$287,490,985, a total value of materials used of \$310,280,842, and a total value of products of \$510,646,581. During the year there were employed 217,833 salaried persons and wage-earners (181,298 males and 36,535 females), to whom were paid salaries and wages aggregating \$104,598,954. Of wage-earners there were 192,245 (156,840 adult males, 31,398 adult females, and 4,007 children under 16 years of age). There were reported by the establishments during the year 8,279 accidents, of which only 54 resulted fatally.

The following table shows for 1906, for each of the 28 industries in the State, which paid out in wages and salaries during the year a total exceeding \$100,000,000, number of establishments, capital

invested, value of products, amount paid in wages and salaries, number of employees (wage-earners and salaried persons) by se

STATISTICS OF 28 MANUFACTURING INDUSTRIES, 1906.

Industry.	Estab- lish- ments.	Capital invested.	Value of products.	Wages and salaries.	Employee	
					Male.	F
Bakeries.....	930	\$3,845,612	\$12,613,614	\$2,741,714	3,815	
Boots and shoes.....	56	12,835,231	31,896,954	6,518,295	10,593	
Brick and tile.....	167	6,940,472	7,301,367	3,247,866	6,830	
Candy and confectionery.....	100	1,769,143	8,107,824	1,370,656	1,960	
Carriages and blacksmithing.....	1,187	5,130,412	10,175,190	2,905,869	5,565	
Car shops.....	34	11,727,701	28,720,756	8,868,865	16,967	
Cigars and tobacco.....	549	4,342,645	23,984,577	2,501,806	3,583	
Clothing.....	640	7,016,663	18,921,391	5,338,781	4,409	
Cooperage.....	155	2,532,686	6,549,350	1,709,118	5,202	
Drugs and chemicals.....	161	5,317,532	9,698,241	1,622,421	1,682	
Flour, feed, and meal.....	689	8,597,264	31,552,247	1,738,256	3,532	
Foundries and machine shops.....	278	13,681,449	19,110,697	6,167,381	10,315	
Furniture.....	100	3,460,249	6,512,935	2,545,879	3,942	
Glass.....	20	3,167,752	2,900,467	1,240,160	2,251	
Grocers' sundries.....	93	4,422,780	14,764,504	1,632,797	1,535	
Harness.....	584	2,464,344	5,557,561	1,238,816	2,248	
Iron, structural.....	67	1,791,129	3,939,025	1,077,752	1,753	
Light, heat, and power.....	168	59,326,065	9,528,789	3,335,182	4,093	
Lime, cement, and plaster.....	34	7,966,604	5,115,797	1,837,327	3,591	
Liquors, malt.....	56	31,285,949	20,369,806	4,925,020	6,802	
Lumber and ties.....	940	6,717,534	13,410,582	4,341,015	15,436	
Meat packing.....	40	6,650,551	75,577,325	3,699,129	6,078	
Planing mills.....	119	4,414,070	5,562,369	1,838,447	3,189	
Printing and publishing.....	1,122	13,297,743	23,064,812	8,312,402	10,166	
Smelting and refining.....	24	13,740,454	14,721,596	2,789,427	5,045	
Stone and marble.....	197	2,299,020	3,095,559	1,308,192	2,611	
Stoves and ranges.....	31	2,823,539	7,186,307	2,542,709	3,459	
Tinning and sheet iron.....	698	3,535,809	8,301,525	1,725,078	3,273	

Additional tables show, for wage-earners, the classified we earnings of adult males, adult females, and children under 16 y of age; number and wages of salaried employees, by sex; also occupations in each industry, the number of male and of female w earners employed, weekly wages paid, hours of labor per day and week, and per cent of changes in wages as compared with 1905.

LABOR ORGANIZATIONS.—This section of the report present eight tables, statistics relative to the labor organizations of State. Following is a comparative summary of all labor orga tions for the years 1905 and 1906:

STATISTICS OF LABOR ORGANIZATIONS, 1905 AND 1906.

Items.	Year.	
	1905.	1
Number of organizations reporting.....	609	
Number of male members.....	74,303	
Number of female members.....	2,481	
Total number of members.....	76,784	
Average per cent of trade organized.....	77.50	
Average number of hours constituting a day's work.....	9.05	
Established wage rate in cents per hour.....	33.85	
Average number of days employed.....	284	
Number of organizations reporting more work.....	127	
Number of organizations reporting less work.....	33	
Number of organizations paying out-of-work benefit.....	31	
Total amount of out-of-work benefit paid.....	\$4,936.50	\$
Number of organizations having provisions for payment of strike benefits.....	414	
Average weekly strike benefit allowed per member.....	\$5.66	
Number of organizations having provisions for payment of sick and accident benefits.....	126	

STATISTICS OF LABOR ORGANIZATIONS, 1905 AND 1906—Concluded.

Items.	Year.	
	1905.	1906.
Average weekly sick and accident benefit allowed per member.....	\$5.10	\$7.30
Total amount of sick and accident benefit paid.....	\$35,212	\$38,199
Number of organizations having provisions for payment of death benefits.....	379	382
Average death benefit allowed per member.....	\$150.43	\$216.82
Total amount of death benefit paid.....	\$137,249	\$161,311
Total amount paid from all benefit funds.....	\$305,985	\$322,647
Total number of strikes.....	40	110
Total number of lockouts.....	9	9
Number of strikes and lockouts settled satisfactorily.....	31	85
Number of strikes and lockouts compromised.....	6	9
Number of strikes and lockouts lost.....	7	9
Disputes still pending at close of report.....	5	16
Number of persons involved in strikes and lockouts.....	8,145	16,600
Number of persons directly benefited in strikes and lockouts.....	2,989	9,885
Number of persons directly worsted in strikes and lockouts.....	144	399
Amount expended in support of strikes and lockouts.....	\$129,433	\$222,653
Amount of wages lost to members through strikes and lockouts.....	\$218,855	\$189,623
Number of organizations reporting increase in wages.....	43	82
Number of organizations reporting reduction in hours per day.....	5	11
Number of appeals for arbitration.....	28	42
Number of disputes settled by arbitration.....	28	38
Number of fatal accidents.....	116	128
Number of nonfatal accidents.....	900	1,393
Total number of accidents.....	1,016	1,521
Number of organizations reporting agreements with employers.....	388	477

Considering the three largest cities of the State, in 1906 St. Louis had 208 organizations with 45,579 members (44,130 males and 1,449 females); Kansas City had 86 organizations with 9,381 members (9,286 males and 95 females), and St. Joseph had 39 organizations with 3,329 members (2,881 males and 448 females).

FREE EMPLOYMENT OFFICES.—The operations of the free employment offices, located in St. Louis, Kansas City, and St. Joseph, for the year ending September 30, 1907, are summarized in the statement following:

OPERATIONS OF FREE EMPLOYMENT OFFICES, 1907.

City.	Applications for positions.		Applications for help.		Positions secured.	
	Males.	Females.	Males.	Females.	Males.	Females.
St. Louis.....	4,230	315	4,185	660	3,276	229
Kansas City.....	3,196	353	5,521	1,526	2,670	172
St. Joseph.....	3,809	757	2,957	918	2,649	512
Total.....	11,235	1,425	12,663	3,104	8,595	913

During the season 2,126 applications for harvest hands were made to the Kansas City and St. Joseph offices, of which number only 1,515 could be supplied.

PUBLIC UTILITY PLANTS.—This section presents statistics relative to telephone systems, water works, gas plants, and electric generating stations. The statistics, which are for both private and municipal owned plants, cover capital invested, receipts and expenditures, number of employees, wages paid, and other data pertaining to the various services.

PRISON SHOPS.—Statistics of manufacturing in the contract shops in the State penitentiary are here presented. The amount paid the State for convict labor in 1906 was \$277,059. The value of goods manufactured during the year aggregated \$2,279,054. Also, statistics are presented for four lesser penal and reformatory institutions.

RHODE ISLAND.

Twentieth Annual Report of the Commissioner of Industrial Statistics, made to the General Assembly at its January session, 1907. George H. Webb, Commissioner. xiv, 541 pp.

This report is made up of four parts, as follows: Part I, The ice industry of Rhode Island, 30 pages; Part II, Industrial statistics and labor laws, 116 pages; Part III, Industries and industrial opportunities by cities and towns, 187 pages; Part IV, Strikes during 1906, directory of trade unions, wages and hours of labor, etc., in the building trades in selected cities, and decisions of courts affecting labor, 208 pages.

THE ICE INDUSTRY.—This report on the ice industry of Rhode Island is based upon statistics furnished by 83 corporations, firms, and individuals operating in the State on March 1, 1906. In addition to the tons of ice harvested and manufactured during the year reported upon, prices for ice both at wholesale and at retail have been obtained from various points in the State, and are presented in comparison with prices obtained from 25 selected cities of the country.

INDUSTRIAL STATISTICS.—In this section of the report comparative statistics for the years 1904 and 1905 are given for the textile, rubber, and fine metal manufacturing industries, showing number of establishments and character of organization; highest, lowest, and average number of employees; wages and number of employees 16 years of age or over, by sex, and children under 16 years of age; cost of materials used and value of goods made and work done; number and character of machines in operation, etc.; also, aggregated statistics for all industries of the State are presented. The fine metal work embraces jewelry, jewelers' findings, silversmithing and silverware, refining, electroplating, enameling, engraving, die-sinking, and lapidary work.

Comparative summary statistics for the years 1904 and 1905 are presented for 9 selected industries in the table following:

COMPARATIVE STATISTICS FOR 9 SELECTED MANUFACTURING INDUSTRIES, 1904 AND 1905.

Industry.	Year.	Estab- lish- ments.	Average number of em- ployees.	Total wages paid.	Cost of ma- terials used.	Value of products, in- cluding work done.
Gold and silver reducing and re- fining.....	1904	10	77	\$54,809	\$3,987,262	\$4,260,698
	1905	10	81	63,304	5,618,052	5,909,588
Jewelry.....	1904	197	6,475	3,365,274	6,657,584	14,431,756
	1905	197	7,466	3,819,586	7,516,412	16,250,157
Rubber and elastic goods.....	1904	9	991	416,642	1,639,301	2,582,180
	1905	9	1,957	773,704	3,067,132	4,614,356
Silversmithing and silverware.....	1904	10	1,919	1,439,688	2,423,361	5,323,264
	1905	10	2,143	1,606,692	2,803,829	6,574,231
Cotton goods.....	1904	99	24,758	8,890,166	19,665,504	34,573,450
	1905	99	25,712	9,610,269	22,202,254	36,810,724
Dyeing and finishing textiles.....	1904	37	7,562	3,181,597	3,639,268	9,981,457
	1905	37	8,083	3,372,493	3,974,081	11,259,083
Hosiery and knit goods.....	1904	15	1,721	573,680	2,271,099	3,344,655
	1905	15	1,812	605,232	2,398,280	3,562,057
Silk and silk goods.....	1904	8	1,291	479,991	1,695,950	2,555,986
	1905	8	1,299	455,512	1,336,409	2,152,140
Woolen and worsted goods.....	1904	82	21,610	9,102,479	35,936,232	52,640,763
	1905	82	23,252	10,140,162	46,285,867	61,800,256

Comparing the data for the two years, the total establishments (241) in the 5 textile industries show 60,158 employees in 1905, against 56,942 in 1904, a total wages paid of \$24,183,668 in 1905, against \$22,227,913 in 1904, a cost of materials used of \$76,196,891 in 1905, against \$63,208,053 in 1904, and a value of products of \$115,584,260 in 1905, against \$103,096,311 in 1904. The total establishments (1,617) in all manufacturing industries of the State show 106,758 employees in 1905, against 97,318 in 1904, a total wages paid of \$47,898,140 in 1905, against \$43,112,637 in 1904, a cost of materials used of \$139,171,498 in 1905, against \$112,872,261 in 1904, and a value of products of \$234,042,897 in 1905, against \$202,109,583 in 1904.

LABOR LAWS.—Under this heading are reproduced the various laws of the State pertaining to labor.

INDUSTRIES AND INDUSTRIAL OPPORTUNITIES.—This part of the report contains a comprehensive presentation of the industries and industrial opportunities of the State by cities and towns, a list of the manufacturing establishments by cities and towns, and a list of abandoned farms by towns. The information is intended to be of value to those seeking location for new industrial enterprises.

STRIKES.—This presentation consists of a chronological arrangement of the strikes occurring in the State during the year ending December 31, 1906, compiled from records kept by the state labor bureau, from the columns of the public press, and from other sources.

DIRECTORY OF TRADE UNIONS.—This directory is a list of 1 state, 6 central, and 163 local bodies, with the name and address of the secretary of each and the time and place of meeting.

THE BUILDING TRADES.—Under this caption is presented statistics of rates of wages, hours of labor, and the Saturday half holiday in the building trades in 36 selected cities of the United States. The data were furnished by the secretaries of international and local trade unions, and are of value for purposes of comparison.

COURT DECISIONS.—Under this heading are reproduced decisions of courts relating to labor, as reported by the United States Bureau of Labor.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

BULGARIA.

Recensement des Industries Encouragées par l'État (31 décembre, 1904).
Principauté de Bulgarie, Direction de la Statistique. 1906. xxii,
101 pp.

This is the first census of manufactures taken in Bulgaria. It includes only those manufacturing establishments which are "encouraged by the State," i. e., which enjoy certain privileges according to the law of 1894, as amended in 1897. These are the exclusive privileges to manufacture within certain geographical limits for a definite number of years; export premiums; reduced railway freight rates for raw materials or for the finished products; free importation of machinery or raw materials; or preference within certain limits over foreign products, notwithstanding that higher prices are charged, in cases of purchases by the Government.

The following industries are granted some or all of these advantages and are therefore included in this enumeration: Textiles and other manufactures of fibers, candles, earthen and china ware, glass and glassware, sugar, paper and paper goods, carriages and other vehicles, chemical products, matches, glue, products of mines and of metals extracted from Bulgarian soil, cement, and lime. Only establishments which have invested at least 25,000 francs (\$4,825) in land, buildings, machinery, and plant, or which employ at least 20 persons, are entitled to such encouragement. Owing to these limitations, several important branches of industry are omitted from this manufacturing census, such as building and construction operations, transportation, printing, bookbinding, tobacco, mineral waters, etc. Nevertheless, it is stated that the census includes the greater part of the factory industry in Bulgaria.

The census embraces both the establishments and the workingmen employed, two schedules having been provided, one for the establishment and another for the employee. The results of the census are presented in 20 general tables, of which 13 deal mainly with the establishments, and 7 with the employees. The information obtained and presented includes the following subjects: (a) For establishments—capital invested, persons employed, nature of ownership,

date of establishment, mechanical power used, number of days operated, value of raw materials, quantity and value of fuel consumed, and quantity and value of products; (b) for employees—nationality, education, conjugal condition, ownership of real estate, age, methods of wage payment, wages, and hours of labor.

Altogether 166 establishments were included in the enumeration. The capital invested amounted to 30,697,285 francs (\$5,924,576). The total number of persons employed was 7,026, of whom 877 were salaried employees and 6,149 wage-workers, 4,411 or 71.7 per cent of the latter being males and 1,738 or 28.3 per cent females. The total value of raw materials was 21,913,594 francs (\$4,229,324), and the value of products 32,776,975 francs (\$6,325,956).

Of the 166 establishments enumerated, 57 manufactured food products, and 51 textiles. The more important data obtained by the census for the separate industrial groups are shown in the following table:

STATISTICS OF ESTABLISHMENTS, BY INDUSTRIES, ACCORDING TO THE CENSUS OF DECEMBER 31, 1904.

Industry.	Number of establishments.	Capital invested, Dec. 31, 1904.	Salaried employees.	Wage-workers.			Horse-power of mechanical motors.	Value of new materials.	Value of products.
				Male.	Female.	Total.			
Mines.....	3	\$149,397	72	1,347	.....	1,347	71	.....	\$264,.....
Metals.....	8	71,352	28	238	.....	238	43	\$29,176	96
Earthen and china ware.....	6	371,891	37	170	.....	170	218	9,898	84
Chemical products.....	15	260,350	44	128	65	193	103	229,921	280
Food products.....	57	2,775,530	319	877	106	983	2,420	2,240,809	2,981
Textiles.....	51	1,281,776	270	1,178	1,565	2,743	1,705	1,342,648	2,072
Wood manufactures.....	8	113,796	39	185	.....	185	268	82,858	127
Hides and leather.....	13	127,639	34	237	.....	237	93	274,724	323
Paper.....	1	35,788	4	20	2	22	26	2,040	5
All other.....	4	737,057	30	31	.....	31	4,030	17,250	90
Total.....	166	5,924,576	877	4,411	1,738	6,149	8,977	4,229,324	6,325,956

Of the 166 establishments included, 154 owned their buildings. These were distributed, according to the amount of capital invested, as follows:

ESTABLISHMENTS OWNING THEIR BUILDINGS, BY AMOUNT OF CAPITAL INVESTED.

Amount of capital invested by each establishment.	Establishments.		Total capital invested.	
	Number.	Per cent.	Amount.	Per cent.
Less than 25,000 francs (\$4,825).....	28	18.2	\$78,538	1.3
25,000 francs (\$4,825) or less than 50,000 francs (\$9,650).....	29	18.8	206,545	3.5
50,000 francs (\$9,650) or less than 100,000 francs (\$19,300).....	29	18.8	382,752	6.5
100,000 francs (\$19,300) or less than 250,000 francs (\$48,250).....	43	27.9	1,262,103	21.4
250,000 francs (\$48,250) or less than 500,000 francs (\$96,500).....	13	8.4	851,793	14.4
500,000 francs (\$96,500) or less than 750,000 francs (\$144,750).....	5	3.3	593,974	10.1
750,000 francs (\$144,750) or less than 1,000,000 francs (\$193,000).....	4	2.6	637,213	10.8
1,000,000 francs (\$193,000) or over.....	3	2.0	1,892,773	32.0
Total.....	154	100.0	5,905,691	100.0

The greater number of the establishments, namely, 129, or 83.7 per cent, had a capital of less than 250,000 francs (\$48,250) each; 22 establishments had a capital of from 250,000 francs (\$48,250) to 1,000,000 francs (\$193,000) each; and 3 had a capital of over 1,000,000 francs (\$193,000). The classification of the establishments by the number of workingmen employed is given in the following table:

ESTABLISHMENTS, BY NUMBER OF WAGE-WORKERS EMPLOYED.

Wage-workers employed.	Establishments.		Total wage-workers.	
	Number.	Per cent.	Number.	Per cent.
None.....	10	6.0	.....	.....
Less than 5.....	17	10.2	51	0.8
5 to 9.....	28	16.9	204	3.3
10 to 19.....	45	27.1	634	10.3
20 to 29.....	23	13.9	549	8.9
30 to 49.....	18	10.9	679	11.1
50 to 99.....	15	9.0	1,060	17.2
100 to 499.....	9	5.4	1,701	27.7
500 to 999.....	.....	.....	.....	.....
1,000 or more.....	1	.6	1,271	20.7
Total.....	166	100.0	6,149	100.0

It is shown that the average number of workingmen per factory was 37, but 100 establishments, or 60.2 per cent, employed less than 20 workers each.

The next table shows the employees grouped according to age and sex:

NUMBER AND PER CENT OF WAGE-WORKERS EMPLOYED, BY AGE AND SEX.

Age.	Male.		Female.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
12 years or less.....	22	0.5	71	4.1	93	1.5
13 to 15 years.....	171	3.9	468	26.9	639	10.4
16 to 20 years.....	860	19.5	919	52.9	1,779	28.9
21 to 30 years.....	1,581	35.9	123	7.1	1,704	27.7
31 to 40 years.....	959	21.7	53	3.0	1,012	16.5
41 to 50 years.....	491	11.1	58	3.3	549	8.9
51 to 60 years.....	235	5.3	36	2.1	271	4.4
61 years or over.....	92	2.1	10	.6	102	1.7
Total.....	4,411	100.0	1,738	100.0	6,149	100.0

Of all the persons employed, 93, or 1.5 per cent, were below 13 years of age, and 639, or 10.4 per cent, from 13 to 15 years of age, making a total of 732 children, or 11.9 per cent of all the workers. The largest class was between 16 and 30 years of age, namely, 56.6 per cent. The employment of persons over 50 years of age was exceptional. Considerable differences are noticed between the sexes with regard to age distribution. Of the male employees, only 4.4 per cent, and of the female employees 31.0 per cent were below 16 years of age. On the other hand, very few adult women were employed, only 280, or 16.1 per cent, being over 20 years of age.

The usual method of payment was by the day, over one-half of all the workers receiving daily wages. A little less than one-fourth worked for other time wages, such as by the week, month, or year. Piece wages or contract wages were comparatively infrequent. Piece wages were almost limited to the textile industry, and contract wages to the mining industry. The following data in regard to the methods of payment are given for 6,110 out of the 6,149 employees:

NUMBER OF WAGE-WORKERS REPORTING METHOD OF WAGE PAYMENT, BY SEX.

Method of wage payment.	Number of wage-workers reporting.			
	Male.	Female.	Total.	
			Number.	Per cent.
By day.....	2,061	1,256	3,337	54.6
By week, month, or year.....	1,262	182	1,444	23.6
By piece.....	440	297	737	12.1
By contract.....	592	.....	592	9.7
Total.....	4,375	1,735	6,110	100.0

The daily wages have been ascertained for 5,262 persons,^(a) of whom 3,683 were male and 1,579 female employees. Of this total only 803, or 15.3 per cent, received more than 2 francs (\$0.386) per day. The remaining employees fall into two nearly equal classes, 2,282, or 43.4 per cent, receiving between 1 franc (\$0.193) and 2 francs (\$0.386), and 2,177, or 41.3 per cent, receiving 1 franc (\$0.193) or less.

There is a considerable difference between the wages of male and female workers. Of the latter only 7, or 0.4 per cent, received over 2 francs (\$0.386) per day; 153, or 9.7 per cent, received from 1 franc (\$0.193) to 2 francs (\$0.386) per day; and 1,419, or 89.9 per cent, received 1 franc (\$0.193) or less per day. Of the male workers, 796, or 21.6 per cent, received over 2 francs (\$0.386) per day; 2,129, or 57.8 per cent, received from 1 franc (\$0.193) to 2 francs (\$0.386), and 758, or 20.6 per cent, received 1 franc (\$0.193) or less. The following table shows the 5,262 workers, by sex and wage groups:

NUMBER AND PER CENT OF WAGE-WORKERS FOR WHOM DAILY WAGES WERE ASCERTAINED, BY SEX AND WAGE GROUPS.

Daily wages.	Males.		Females.		Total.	
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.
0.30 franc (\$0.058) or less.....	24	0.7	99	6.3	123	2.3
0.30 franc (\$0.058) to 0.50 franc (\$0.097).....	60	1.6	417	26.4	477	9.1
0.50 franc (\$0.097) to 0.80 franc (\$0.154).....	203	5.5	642	40.7	845	16.0
0.80 franc (\$0.154) to 1 franc (\$0.193).....	471	12.8	261	16.5	732	13.9
1 franc (\$0.193) to 1.50 franc (\$0.290).....	1,142	31.0	125	7.9	1,267	24.1
1.50 francs (\$0.290) to 2 francs (\$0.386).....	987	26.8	28	1.8	1,015	19.3
Over 2 francs (\$0.386).....	796	21.6	7	.4	803	15.3
Total.....	3,683	100.0	1,579	100.0	5,262	100.0

^aIn addition to 3,337 paid by the day this total includes 1,444 paid by the week, month, or year and 481 paid by piece or contract for whom daily wages were computed.

The distribution of wage-workers by industries, sex, and wage groups is shown in the following table:

NUMBER OF MALE AND OF FEMALE WAGE-WORKERS FOR WHOM DAILY WAGES WERE ASCERTAINED, BY INDUSTRIES AND WAGE GROUPS.

Industry.	Total wage-workers.	Males receiving daily wages of—				Females receiving daily wages of—			
		1 franc (\$0.193) or less.	1 franc (\$0.193) to 2 francs (\$0.386).	Over 2 francs (\$0.386).	Total.	1 franc (\$0.193) or less.	1 franc (\$0.193) to 2 francs (\$0.386).	Over 2 francs (\$0.386).	Total.
Textiles.....	2,629	338	593	230	1,161	1,310	151	7	1,468
Food products.....	935	57	612	177	846	88	1		89
Mines.....	775	195	482	98	775				
Metals.....	214	68	75	71	214				
Hides and leather.....	210	48	95	67	210				
Wood manufactures.....	182	14	78	90	182				
Earthen and china ware.....	158	18	127	13	158				
Chemical products.....	108	10	47	31	88	19	1		20
Paper.....	22	7	12	1	20	2			2
All other.....	29	3	8	18	29				
Total.....	5,282	758	2,129	796	3,683	1,419	153	7	1,579

The wages were lowest in the textile industries, mainly because of the large number of women employed, and highest in the manufacture of wood products. The average daily wage for all male workers was 1.67 francs (\$0.322) per day; for the female workers it was 0.71 franc (\$0.137), and for both sexes 1.38 francs (\$0.266) per day. In the wood industry the average wage was 2.48 francs (\$0.479), in metal manufacturing 2.16 francs (\$0.417), and in the textile industry, 1.04 francs (\$0.201).

Interesting data are presented in the following table, showing the wage distribution for five separate age groups for each sex.

NUMBER OF MALE AND OF FEMALE WAGE-WORKERS FOR WHOM DAILY WAGES WERE ASCERTAINED, BY WAGE AND AGE GROUPS.

Daily wages per worker.	12 years or less.	13 to 15 years.	16 to 20 years.	21 to 60 years.	61 years or over.	Total.
MALES.						
0.30 franc (\$0.058) or less.....	2	8	14			24
0.30 franc (\$0.058) to 0.50 franc (\$0.097).....	5	9	34	12		60
0.50 franc (\$0.097) to 0.80 franc (\$0.154).....	1	36	126	38	2	203
0.80 franc (\$0.154) to 1 franc (\$0.193).....	9	82	240	137	3	471
1 franc (\$0.193) to 1.50 francs (\$0.290).....	1	4	259	860	18	1,142
1.50 francs (\$0.290) to 2 francs (\$0.386).....			90	876	21	987
Over 2 francs (\$0.386).....		3	31	738	24	796
Total.....	18	142	794	2,661	68	3,683
FEMALES.						
0.30 franc (\$0.058) or less.....	27	65	6	1		99
0.30 franc (\$0.058) to 0.50 franc (\$0.097).....	32	186	135	64		417
0.50 franc (\$0.097) to 0.80 franc (\$0.154).....	5	108	448	78	3	642
0.80 franc (\$0.154) to 1 franc (\$0.193).....	2	44	113	97	5	261
1 franc (\$0.193) to 1.50 francs (\$0.290).....		24	81	20		125
1.50 francs (\$0.290) to 2 francs (\$0.386).....			22	6		28
Over 2 francs (\$0.386).....		1	4	2		7
Total.....	66	428	809	268	8	1,579

For males below 16 years of age the usual range was between 0.50 franc (\$0.097) and 1 franc (\$0.193), 128 out of 160, or 80 per cent, of this age group receiving such wages. Of the male persons between 16 and 20 years of age, 63 per cent received from 0.80 franc (\$0.154) to 1.50 francs (\$0.29); and of the adults, 65 per cent received from 1 franc (\$0.193) to 2 francs (\$0.386). In the case of female employees, 89 per cent of the girls 12 years of age or less received 0.50 franc (\$0.097) or less per day; of those from 13 to 15 years of age 69 per cent received from 0.30 franc (\$0.058) to 0.80 franc (\$0.154); of the young women 16 to 20 years of age, more than one-half received from 0.50 franc (\$0.097) to 0.80 franc (\$0.154) and 86 per cent received from 0.30 franc (\$0.058) to 1 franc (\$0.193); again, of the adult women 66 per cent received from 0.50 franc (\$0.097) to 1 franc (\$0.193).

In the next two tables the wage-workers are grouped according to hours of labor and age and hours of labor and sex, respectively:

NUMBER AND PER CENT OF WAGE-WORKERS EMPLOYED, BY HOURS OF LABOR AND AGE GROUPS

Age groups.	8 hours or less.		8 to 10 hours.		10 to 12 hours.		12 to 15 hours.		Over 15 hours.		Total.
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	
12 years or less.....	4	4.3	9	9.7	62	66.6	17	18.3	1	1.1	93
13 to 15 years.....	13	2.0	66	10.3	424	66.4	130	20.4	6	.9	639
16 to 20 years.....	41	2.3	424	23.8	992	55.8	296	16.6	26	1.5	1,779
21 to 30 years.....	42	2.4	777	45.6	717	42.1	117	6.9	51	3.0	1,704
31 to 40 years.....	16	1.6	492	48.6	371	36.7	84	8.3	49	4.8	1,012
41 to 50 years.....	9	1.6	259	47.2	189	34.4	68	12.4	24	4.4	549
51 to 60 years.....	6	2.2	123	45.4	104	38.4	29	10.7	9	3.3	271
61 years or over.....	3	2.9	38	37.3	43	42.2	15	14.7	3	2.9	102
Total.....	134	2.2	2,188	35.6	2,902	47.2	756	12.3	169	2.7	6,149

NUMBER AND PER CENT OF WAGE-WORKERS EMPLOYED, BY HOURS OF LABOR AND SEX.

Sex.	8 hours or less.		8 to 10 hours.		10 to 12 hours.		12 to 15 hours.		Over 15 hours.		Total.
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	
Male.....	87	2.0	2,005	45.4	1,843	41.8	307	7.0	169	3.8	4,411
Female.....	47	2.7	183	10.5	1,059	60.9	449	25.9	.....	.....	1,738
Total.....	134	2.2	2,188	35.6	2,902	47.2	756	12.3	169	2.7	6,149

Of the wage-workers enumerated, 3,827 persons, or 62.2 per cent, worked more than ten hours per day. Fifteen per cent worked more than twelve hours per day. For the female employees the hours are found to be longer, 86.8 per cent working over ten hours a day, while for the male employees the proportion working over ten hours per day is only 52.6 per cent. This is explained by the long hours of labor in the textile industry. The distribution of employees by age and hours of work shows decidedly longer hours for the younger age groups.

GREAT BRITAIN.

Sixth Report of Proceedings under the Conciliation (Trade Disputes) Act, 1896. 1905-1907. (Published by the Board of Trade.) 110 pp.

This is a report of the proceedings under the Conciliation Act, 1896, and covers a period of two years, from July 1, 1905, to June 30, 1907. During the period 51 cases were presented for settlement, of which 23 occurred in the last six months of the period (January to June, 1907). The total number of cases in which a stoppage of work occurred was 16.

In the table following is shown the number of cases dealt with and settled in each of the periods covered by the six reports since August, 1896:

CASES DEALT WITH AND SETTLED UNDER THE CONCILIATION (TRADE DISPUTES) ACT, 1896, FROM AUGUST, 1896, TO JUNE, 1907.

Report and period covered.	Cases dealt with.	Cases settled under the act.
First report (August, 1896, to June, 1897).....	35	19
Second report (July, 1897, to June, 1899).....	32	22
Third report (July, 1899, to June, 1901).....	46	29
Fourth report (July, 1901, to June, 1903).....	41	29
Fifth report (July, 1903, to June, 1905).....	27	24
Sixth report (July, 1905, to June, 1907).....	51	45
Total.....	232	168

Of the 232 cases dealt with since August, 1896, in 140 cases the application for arbitration or conciliation was made by both parties to the dispute, in 60 cases by workmen, in 22 cases by employers, and in the remaining by arbitrators who had failed to agree, etc. The number of cases of joint application during the two years under review was 46, or 90 per cent of all the cases dealt with.

Of the 51 disputes dealt with during the two years covered by the report, 14 were in the building trades, 13 in the boot and shoe trade, 7 in the metal, engineering, and shipbuilding trades, 7 in the printing and allied trades, 4 in mining and quarrying, and 6 in other trades. During the period since the act came into operation, 82 cases have arisen in the building trades, 45 in the metal, engineering, and shipbuilding trades, 27 in mining and quarrying, 20 in the boot and shoe trade, 17 in transportation, 14 in the printing and allied trades, 11 in the textile trades, and 16 in other trades.

Among the cases settled during the period under review, 2 were of special importance—the Nottingham lace trade dispute and the music hall dispute. Of the 13 cases in the boot and shoe industry, 4 had reference to applications made by the work people for a minimum wage to be fixed or for the raising of a minimum already in existence. The awards made fixed a minimum wage for lasters and

finishers in London, for clickers and pressmen in Kettering, and for all classes of adult male boot and shoe operatives in Anstey and Stamford. Some of the building trades cases were also of importance, deciding, as they did, the wages, hours, or conditions of employment of various classes of workmen in the building trades of London, Manchester, Glasgow, Birkenhead, Wakefield, and Coventry. Among the cases which occurred in the printing and publishing trades were those at London, Glasgow, Bolton, and Reading. The award in the Glasgow case fixed the pay of compositors employed on newspaper work, and that in the Bolton case the pay of printers' helpers.

Appendixes give tabular summary and detailed statement of each case presented to the board during the period covered by this report; text of awards and agreements made under the Conciliation Act during the same period; rules of conciliation boards and other agreements containing clauses which provide for reference of disputes to the Board of Trade, failing their settlement by other agencies, and reproduction of the text of the Conciliation Act, 1896.

Report of the Departmental Committee Appointed to Consider Whether the Post-Office should Provide Facilities for Insurance under the Workmen's Compensation Acts. 1907. 170 pp.

This document consists of the report of a departmental committee which was appointed March 1, 1907, by the postmaster-general (1) To consider whether it is practicable, and, if practicable, whether it is desirable, for the post-office to provide facilities for the insurance of employers in respect to their liabilities under the Workmen's Compensation Acts, either generally or subject to limitations. (2) And further, to consider whether it is desirable that steps should be taken to encourage the use of the present life insurance system of the post-office; and, if so, what steps.

The committee held 13 meetings, 10 of which were occupied in the taking of evidence, and 23 witnesses were examined. Evidence was given by officials from the post-office and home office, factory inspectors, representatives of insurance companies, of agriculture, of the building, fishing, and coasting trades, and of the Women's Trade Union League, etc. In reply to questions embodied in circular letters there were reviewed the views of 66 chambers of agriculture and farmers' associations and of a number of miscellaneous industries. The report of the committee was handed to the postmaster-general on June 5, 1907.

It appeared from an estimate obtained by the Home Office that the number of workmen added by the act of 1906 to the classes already entitled to compensation for accidents incurred in the course of their employment was approximately 6,000,000. A considerable proportion of these workmen, however, would be in the service of employe

fully cognizant of the advantages of insurance and of the facilities for effecting it, or strong enough to bear the risks themselves; so that, in considering to what extent the act might fail in its object through lack of knowledge or of facilities for insurance, the figure of 6,000,000 must be largely reduced. Yet, in the opinion of the committee, there would remain a considerable number of small employers so likely to be ignorant of their fresh responsibilities as to make it important to take special measures for giving the widest publicity to the provisions of the act before it came into operation. There was a general consensus of opinion among the witnesses that, whatever facilities were offered for insurance, there would always remain a number of small employers whom nothing short of a system of compulsion would induce to insure. It was obvious to the committee that the post-office could do nothing to help this class, and that the necessity for post-office interference, if it existed at all, must lie among the small employers who were anxious to meet their liabilities, but experienced difficulty in obtaining insurance.

The committee were led, therefore, to inquire into the adequacy of the facilities for insurance existing, or likely to exist, throughout the country, both as regards cost to the insurer and geographical distribution. Information as to the facilities for insurance were obtained from the large insurance companies, and the Association of Accident Companies delegated witnesses, who gave full and valuable evidence. The delegates of the companies gave a pledge that they would be prepared to undertake the insurance of every class of subject. The evidence of the companies and of the independent witnesses showed that there was keen competition among the companies for business, that the whole country was covered by the organization of the insurance offices, and that all classes were afforded the opportunity of readily effecting insurance with offices of good standing.

The extensive facilities which already exist, and the uncertainty of the situation, appeared to the committee to constitute weighty reasons against any hasty action on the part of the Government. At the outset two difficulties would arise: (1) No scheme whatever involving the post-office as principal, or money-spending agent, could be set up without special legislation. (2) The act coming into force on July 1, 1907, the post-office could not possibly organize an effective department, requiring a fresh staff, before that date. These objections were considered fatal to the immediate creation of a scheme of state insurance against liability under the Workmen's Compensation Acts, and the committee was impressed by certain special difficulties which would beset a Government department, such as the post-office, in dealing with insurance of this character.

As an alternative, which it was contended would be free from some of the difficulties previously indicated and yet would afford valuable

facilities to the public, schemes not covering the whole category of risks were presented by several witnesses. These limited schemes may be divided into three classes: (1) Insurance of small employers only, to be defined either by the number of workmen employed or by the amount of wages paid. (2) Insurance confined to special classes of employment, especially those involving little risk, as domestic servants, shop assistants, clerks, teachers, etc. (3) Insurance in any class of employment against a part only of the liability. While each of these classes of schemes had, no doubt, something to recommend it, the committee were compelled to point out that many of the objections already made to a complete state scheme applied with but little less force to a limited scheme; also, there were certain particular objections made to each of the suggested forms of limitation.

The schemes that have been considered so far have involved the action of the State as principal; but there were other methods suggested whereby the organization of the post-office acting as agent might be utilized for increasing the facilities for transacting insurance business throughout the country.

As a result of the inquiry, the committee felt unable to suggest for immediate adoption any scheme involving post-office action as principal or as agent. However, the committee thought it possible for the post-office to afford assistance toward publicity in two ways: (1) By the exhibition at all post-offices of a notice drawing attention to the liabilities imposed by the act, and the advisability of insurance against them, to be framed in conjunction with the Home Office. (2) By an offer to distribute at post-office counters an alphabetical list of accident insurance companies, with the definite notification that the list is prepared by the companies and in no way commits the post-office.

The present report covers only the first part of the inquiry directed by the postmaster-general; the consideration and report on the second part the committee proposed to defer until a later date.

INDIA.

Report of the Textile Factories Labor Committee Appointed by the Government of India, December, 1906, to Inquire into the Conditions of Factory Labor in India. 1907. 81 pp.

This document consists of the report of the textile factories labor committee appointed December 17, 1906, by the government of India on the recommendation of the secretary of state for India, to inquire into the conditions of factory labor in India.

The investigation was directed, in the first instance, toward ascertaining the actual conditions prevailing in India, and the specific points of inquiry referred to the committee were as follows:

(1) Whether the working hours of adult males should be limited and whether the physique of operatives is affected by long hours; (2) whether before children are allowed to work in factories certificates of age and fitness should be required; (3) whether the minimum age of children should be raised beyond 9; (4) whether as the result of employment as adults of persons between the ages of 12 and 14, there has been physical deterioration requiring the creation by law of a special class of workers known as young persons; (5) whether a separate staff of medical factory inspectors should be entertained.

Though the inquiries to be made by the committee were directed more particularly toward the settlement of the five preceding questions, they were requested to put forward recommendations for the amendment of the existing law or practice, if they were of the opinion "that the present hours of work of operatives are excessive, that the conditions of factory labor are otherwise injurious or oppressive, or that abuses exist in connection with the employment of children or young persons." The homes and surroundings of the mill hands were also given consideration.

This investigation to be made by the committee was intended to be preliminary only in character; but should it establish the existence of abuses which required to be remedied, a representative commission was to be appointed to consider the whole subject comprehensively before any radical changes in the present factory law were made.

The committee visited the cities of Bombay, Ahmedabad, Calcutta, Madras, Delhi, Agra, Cawnpore, and Nagpur, where textile mills were inspected and evidence taken from local officials, mill owners, managers, operatives, etc. The report on its inquiries was submitted April 5, 1907.

The report of the work of the committee is classed under the following general heads: Administration of factory laws, system of inspection, certificates of age and physical fitness, minimum age for employment of children, employment of women, adult male labor, physique of operatives, "particulars" of work and wages, proposals for the creation of a new class of workers to be known as "young persons," sanitation of factories and mills, means of escape in case of fire, guarding of machinery, etc.

In the conclusions arrived at by the committee were suggested amendments to the present Indian Factories Act relating to administration, fencing of machinery, holidays, and the "occupier" of factories and workshops.

There were twenty definite suggestions made by the committee—

1. That there may be as little delay as possible in giving effect to proposals in contemplation for improving the homes and home surroundings of mill hands.

2. That arrangements be made to secure uniformity of administration of the factory act throughout India.

3. That systems of inspection, the strength and composition of the staff of inspectors should be considered with a view to securing efficiency.

4. That medical inspectors whose whole time should be devoted to their duties under the factories act be appointed.

5. That certificates of age and physical fitness for employment be required prior to half-time employment, and prior to employment as an adult, * * * and that they be the personal property of the persons to whom they apply.

6. That consideration be given to the suggestion made by many experienced witnesses that elementary teachers to be paid by the mill owners should be appointed for instruction of half-time children in suitable places on the mill premises.

7. That clear and definite laws be made, requiring that half-time children shall be employed only in sets—either on the morning and afternoon set system, or the double-set system largely adopted in Indian mills. That efficient measures be taken to secure that the children work only in their proper sets, and that the prescribed hours of labor are not exceeded.

8. That night work of women be prohibited.

9. That by suitable administrative regulations young children should be prevented from accompanying their parents to rooms in which they incur risk from running machinery or the inhalation of dust or impure vapors.

10. That the period of employment in Indian factories shall be either between the hours of 5.30 a. m. and 6 p. m., or 6 a. m. and 6.30 p. m. That the engine shall cease running for half an hour between the hours of noon and 2 p. m. * * *

11. That the names of all persons under the age of 16 years be entered in the prescribed register, but that certificates of age and physical fitness be only required up to the age of 14 years.

12. That samples of air collected under prescribed conditions be taken in works in all parts of India, with a view to hereafter decide upon a suitable standard of ventilation.

13. That wet and dry bulb thermometers be placed in all humid cotton cloth factories, readings taken at fixed times, and returns forwarded monthly; these returns to be eventually considered with a view to deciding the amount of moisture necessary for manufacturing purposes, bearing in mind the health of the operatives.

14. That a standard of purity for water to be used for introducing moisture into the mills and factories be fixed.

15. That the dates of lime washing be entered in a prescribed register.

16. That particular attention be paid to carrying off dust when generated in quantities likely to cause injury to health.

17. That when inquiries now going on are complete, should it be found that workers in woolen mills are liable to contract anthrax, the special precautions framed under the English Factory Act be considered.

18. That the latrine accommodation be increased to one seat for every twenty-five persons and that separate urinal accommodation be provided in all mills.

19. That doors in the various rooms be hung in such a way that they can be immediately opened from inside and be constructed so as to open outward. (This is recommended as a safety measure in case of fire.)

20. That in certain respects—chiefly in ginning mills—more attention be paid to the fencing of dangerous mill gearing and machinery.

ITALY.

Statistica degli scioperi avvenuti in Italia nell'Anno 1904. Ufficio del Lavoro, Ministero di Agricoltura, Industria, e Commercio. 1907. viii, 317 pp.

This is the twelfth of a series of reports on strikes and lockouts published by the Italian Department of Agriculture, Industry, and Commerce. The present volume, which is the first report compiled by the Bureau of Labor of that department on this subject, shows in detailed tables and text statements the most important facts in reference to the strikes occurring during the year 1904, the strikes being separated into two categories: (1) Those occurring in industries other than agriculture, and (2) those taking place in agricultural industries alone. The report also contains a summary table showing the number of strikes and strikers for each year of the period 1879 to 1904.

The present volume differs considerably from those previously published by the General Statistical Office of the same department. There are in all nine tables giving information in regard to the strikes, as follows: (1) Number of strikes, establishments, and strikers, and the relation to the industry and labor organization; (2) strikes, by months; (3) strikes and strikers, by size of establishment; (4) women in strikes; (5) children in strikes; (6) duration and results of strikes; (7) causes of strikes; (8) cost of strikes; (9) workingmen discharged after strikes. The data in regard to these subjects are far from complete. The strikes for each of the 44 industries named in the report are treated in a separate chapter, but for many of the industries certain tables are missing. Summary statements are given only partly for several of the tables. The difference between this report and the preceding ones is so great that any effort to compare the data would be futile except in a few cases.

Strikes in 1904.—During the year 1904 there were 840 strikes, of which 208 were agricultural and 632 occurred in other industries. The 208 strikes among agricultural workers involved a total of 94,756 strikers, and the 630 strikes in other industries (data for 2 strikes not being available) involved 118,356, making a total of 213,112 strikers. The number of strikes and strikers by industries is shown in the following table, in which the 44 industries given in the report have been reduced to 17 groups to conform as nearly as possible to the classification of the preceding years.

STRIKES AND STRIKERS, BY INDUSTRIES, 1904.

Industry.	Strikes.	Strikers.
Agriculture.....	208	94,756
Mining and quarrying.....	63	23,606
Foundry products, machinery, apparatus, and shipbuilding.....	65	4,422
Precious-metal working.....	4	578
Stone, clay, and glass.....	45	6,701
Building and engineering work.....	100	30,793
Chemical products.....	20	1,344
Woodwork, furniture, baskets, etc.....	21	1,262
Paper.....	6	125
Printing.....	13	242
Textiles.....	130	20,040
Clothing, hats, straw goods.....	20	1,798
Hides and shoes.....	27	1,202
Food products.....	54	10,528
Fishing.....	2	499
Transportation.....	23	8,192
Public utilities and monopolies.....	37	6,990
Total.....	838	213,112

* The number of strikers in industries other than agriculture is given in the report as 118,356. This number, although 25 in excess of the sum of the items here shown for those industries, has been used in determining the total strikers for all industries.

The greatest number of strikes occurred among agricultural workers, 24.8 per cent of all strikes and 44.5 per cent of all strikers being found in that industry. In building and engineering work and in mining and quarrying the number of strikers totaled 14.4 per cent and 11.1 per cent, respectively, of the entire number reported. In the textile industries the number of strikes represented 15.5 per cent and the number of strikers 9.4 per cent of the total number. The following table shows, for the agricultural and for the other industries, separately, the results of strikes, arranged according to principal causes:

STRIKES, BY CAUSES AND RESULTS, 1904.

[Strikes due to two or more causes have been tabulated under each cause; hence the totals for this table do not agree with those for the preceding table and the second table on page 573.]

Cause or object.	Agricultural occupations.					Other industries.				
	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.
For increase of wages.....	38	40	31	2	120	89	128	101	3	321
Against reduction of wages.....	6	2	1	.....	9	17	12	23	.....	52
For reduction of hours.....	19	18	29	1	67	24	21	24	.....	69
Against increase of hours.....	1	3	1	.....	5	3	5	6	.....	14
Other causes.....	36	13	39	9	97	103	62	142	8	315
Total.....	100	85	101	12	298	236	228	296	11	771

Questions of wages were the most frequent causes of strikes in 1904, in agricultural occupations 43.3 per cent and in other industries 48.4 per cent of all strikes being due wholly or in part to this cause. The demand for reduction of hours occasioned 22.5 per cent of the strikes among agricultural workers and 8.9 per cent of those among employees in other industries. The distribution of causes of strikes among the

various groups of industries other than agricultural is shown in the following table:

STRIKES, BY INDUSTRIES AND CAUSES, 1904.

[Strikes due to two or more causes have been tabulated under each cause; hence the totals for this table do not agree with those for the following table and the table on page 572.]

Industry.	For in-crease of wages.	Against reduction of wages.	Other causes affect-ing wages.	For re-duc-tion of hours.	Other causes affect-ing hours.	Against dis-charge and other punish-ments.	For dis-charge of su-perin-tend-ents, etc.	Other causes.	Total.
Mining and quarrying	47	3	5	3	1	2	1	19	81
Foundry products, machinery, apparatus, and shipbuilding ..	30	4	3	9	2	14	2	16	80
Precious-metal working	1	6	1	1	1	1	1	5	9
Stone, clay, and glass	32	4	6	2	2	5	1	4	52
Building and engineering work ..	58	4	6	20	12	1	1	13	115
Chemical products	9	1	3	3	.....	5	2	2	25
Woodwork, furniture, baskets, etc.	8	2	.....	.....	1	3	2	7	23
Paper	2	2	1	1	.....	1	.....	1	8
Printing	5	.....	.....	2	.....	6	.....	1	14
Textiles	45	19	7	11	13	22	14	25	156
Clothing, hats, straw goods	6	3	4	.....	3	3	2	3	24
Hides and shoes	12	3	2	4	1	2	1	8	33
Food products	32	2	2	5	2	7	2	19	71
Fishing	1	.....	.....	.....	.....	1	.....	.....	2
Transportation	13	3	1	.....	.....	1	1	5	24
Public utilities and monopolies ..	20	1	.....	8	2	9	5	9	54
Total	321	52	35	69	40	83	34	137	771

In the following table are shown, as far as data are available, the number of working days lost, the aggregate loss in wages, and the amount of strike benefits paid in strikes in all industries other than agriculture during 1904:

DAYS OF WORK LOST, WAGE LOSS, AND AMOUNT OF BENEFITS PAID IN STRIKES 1904, BY INDUSTRIES.

Industry.	Total strikes.	Strikes for which aggregate days lost was re-ported.	Aggre-gate days lost.	Strikes for which total wage loss was re-ported.	Total wage loss.	Strikes in which—		Amount of strike benefits paid.
						Strike benefits were paid.	Amount of strike bene-fits was re-ported.	
Mining and quarrying	63	61	247,376	43	\$62,543.79	6	3	\$1,173.44
Foundry products, machinery, apparatus, and shipbuilding ..	65	64	70,315	58	18,890.64	17	12	3,873.92
Precious-metal working	4	4	27,922	4	13,084.83	3	2	219.06
Stone, clay, and glass	45	44	124,531	38	40,237.05	8	6	2,731.34
Building and engineering work ..	100	97	229,504	82	90,698.73	13	8	2,306.45
Chemical products	20	19	9,243	15	2,640.39	2	2	96.50
Woodwork, furniture, baskets, etc.	21	21	18,578	18	7,903.70	5	3	311.70
Paper	6	6	882	6	233.47	2	2	36.48
Printing	13	11	3,682	11	1,708.49	3	2	27.82
Textiles	130	128	247,480	60	36,749.44	9	6	1,322.56
Clothing, hats, straw goods	20	20	52,374	18	14,255.35	5	4	329.45
Hides and shoes	27	26	18,861	24	10,439.11	10	6	971.47
Food products	54	54	205,686	51	83,205.89	14	8	13,867.58
Fishing	2	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Transportation	23	23	80,901	16	44,887.54	4	4	50.57
Public utilities and monopolies ..	37	37	30,846	31	5,715.24	2	2	1,241.22
Total	630	615	1,368,181	475	433,193.66	103	70	28,559.56

(a) Not reported.

In the 615 strikes for which the facts were reported, the total number of working days lost was 1,368,181, or an average of 2,225 days each. The aggregate wage loss in 475 strikes was \$433,193.66, or \$911.99 for each strike. Strike benefits were paid in the case of 70 strikes, the average amount per strike being \$407.99.

RUSSIA.

Svod Otchetov Fabrichnykh Inspectorov za 1904 god (Digest of reports of factory inspectors for 1904). Published by Otdiel promyshlennosti, Ministerstvo trgovli i promyshlennosti (Bureau of Industry of the Ministry of Commerce and Industry). 1907. pp. xv, 212.

Annual digests of the reports of the factory inspectors have been published by the Russian Government since 1900. The one under consideration is the fifth in the series. In addition to the accounts of the administrative activities of the inspectors, the reports contain many important annual data concerning the manufactures of Russia, such as the number of establishments and employees, the number of women and children employed, idle establishments, strikes, industrial accidents, wages, etc. The data refer only to those establishments and industries which are subject to factory inspection, as stated on page 978 of Bulletin 76.

At the beginning of the year 1904 there were subject to inspection 15,375 establishments with 1,684,334 employees, and at the end of the year 14,700 establishments with 1,663,080 employees. The decrease was mainly due to the closing of 745 establishments with 28,744 employees. The closed establishments were mostly of the smaller type, with an average of 38.6 employees, so that the average number of employees per establishment increased from 109.6 in the beginning of the year to 113.1 at its close.

The following table gives the number of the industrial establishments grouped by the number of workmen employed:

NUMBER AND PER CENT OF ESTABLISHMENTS AND EMPLOYEES, BY SIZE OF ESTABLISHMENTS, AT THE END OF 1904.

Persons employed per establishment.	Establishments.		Employees.		Average number of employees per establishment.
	Number.	Per cent.	Number.	Per cent.	
20 or less.....	5,349	36.4	63,598	3.8	11.9
21 to 50.....	4,602	31.3	151,785	9.1	33.0
51 to 100.....	2,063	14.0	146,643	8.8	71.1
101 to 500.....	2,042	13.9	465,955	28.0	228.2
501 to 1,000.....	393	2.7	273,791	16.5	696.7
Over 1,000.....	251	1.7	561,308	33.8	2,236.3
Total.....	14,700	100.0	1,663,080	100.0	113.1

It appears that while the majority of the establishments are of the smaller type, 81.7 per cent of them containing 100 working-

men or less, and 67.7 per cent, 50 workingmen or less, the majority of the factory employees worked in large establishments, 78.3 per cent in those employing over 100 workers and 50.3 per cent in those employing more than 500 workers.

The distribution of the factory employees by sex and by age groups at the beginning and at the end of the year is shown in the following table:

NUMBER AND PER CENT OF EMPLOYEES, BY SEX AND AGE GROUPS, AT BEGINNING AND END OF THE YEAR 1904.

Age group and sex.	Employees at beginning of the year.		Employees at end of the year.		Increase (+) or decrease (-).
	Number.	Per cent.	Number.	Per cent.	
Adults (over 17):					
Males.....	1,109,024	65.8	1,095,387	65.9	-13,637
Females.....	388,442	23.1	390,848	23.5	+ 2,406
Total.....	1,497,466	88.9	1,486,235	89.4	-11,231
Young persons (15 to 17, inclusive):					
Males.....	97,479	5.8	93,992	5.6	- 3,487
Females.....	61,298	3.6	57,966	3.5	- 3,332
Total.....	158,777	9.4	151,958	9.1	- 6,819
Children (12 or under 15):					
Males.....	16,363	1.0	15,174	.9	- 1,189
Females.....	11,728	.7	9,713	.6	- 2,015
Total.....	28,091	1.7	24,887	1.5	- 3,204
All employees:					
Males.....	1,222,866	72.6	1,204,553	72.4	-18,313
Females.....	461,468	27.4	458,527	27.6	- 2,941
Total.....	1,684,334	100.0	1,663,080	100.0	-21,254

In Russian industrial statistics it is customary to differentiate three age groups: Adults over 17 years of age, young persons from 15 to 17 years, and children from 12 to 15 years. The table shows that at the end of the year adult women constituted 23.5 per cent of the total number of employees, young persons of both sexes 9.1 per cent, and children below 15 years of age 1.5 per cent. During the year there was an increase of adult women and a decrease of young persons and children of both sexes.

During the year, 69,697 accidents were reported to the factory inspectors; of these, 67,098, or 96.27 per cent, were slight in their nature, 2,204, or 3.16 per cent, were serious, and 395, or 0.57 per cent, were fatal. The data are particularly interesting, since the year 1904 was the first year of the operation of the Workingmen's Compensation Act of June 2 (15), 1903,^a which requires complete reports of all industrial accidents. In the preceding year only 35,138 accidents were reported.

The factory inspectors are required to present complete reports on the amount of fines which the Russian factory code permits the employers to impose upon the employees for the following three causes:

^a See Bulletin 58, pp. 955-959.

Faulty work, unexcused absences, and breach of the factory rules or disturbance of peace.

The number of fines, the total amount collected in fines, and the average amount per fine, per employee, and per \$100 in wages, for the years 1901 to 1904 are shown in the following table:

FINES COLLECTED, 1901 TO 1904.

Year.	Working-men in establishments where fines are imposed.	Number of fines imposed.		Amount collected in fines.			
		Total.	Per 100 work-ers.	Total.	Average per fine.	Average per em- ployee in establish-ments.	Per \$100 wages paid.
1901.....	1,222,382	2,372,283	194	\$285,846	\$0.120	\$0.233	\$0.225
1902.....	1,233,737	2,815,572	228	272,674	.097	.222	.212
1903.....	1,254,528	2,930,205	234	271,628	.093	.216	.194
1904.....	1,261,311	2,903,172	230	276,012	.095	.219	.190

The next table shows the number of fines levied, the total amount of fines collected, and the average amount per fine in 1904, classified according to the reasons for which the fines were levied:

NUMBER OF FINES AND AMOUNT COLLECTED, BY CAUSES OF FINES, 1904.

Fines levied on account of—	Number of cases.	Total amount collected in fines.	Average amount of each fine.
Faulty work.....	2,155,168	\$126,797	\$0.059
Unexcused absence.....	416,960	104,531	.251
Breach of rules or disturbance of peace.....	331,044	44,684	.135
Total.....	2,903,172	276,012	.095

The largest number of fines in 1904, or 74.2 per cent, were imposed for faulty work, the average amount levied being very small, namely, less than 6 cents. The fines levied for other reasons are less frequent, but greater in amount. According to the Russian factory law, the sums collected in fines can be used only for the relief of the factory employees in cases of permanent or temporary disability resulting from illness or accidents, in cases of confinement, for funeral expenses, for loss of property of employees through fire or other causes, or for cases of need. The number of cases relieved and the total and average amounts granted in 1904 are shown in the following table:

DISPOSITION OF AMOUNTS COLLECTED IN FINES, BY CHARACTER OF RELIEF GRANTED, 1904.

Character of relief granted.	Cases of relief.	Amount of relief.	
		Total.	Per case.
Permanent disability.....	7,014	\$45,106	\$6.43
Temporary disability resulting from illness.....	34,311	91,784	2.68
Confinement.....	22,301	38,189	1.71
Funeral expenses.....	18,174	50,580	2.78
Loss of property through fire or other causes.....	4,241	25,266	5.96
All other objects.....	6,179	25,052	4.05
Total.....	92,220	275,977	2.99

DECISIONS OF COURTS AFFECTING LABOR.

[Except in cases of special interest, the decisions here presented are restricted to those rendered by the Federal courts and the higher courts of the States and Territories. Only material portions of such decisions are reproduced, introductory and explanatory matter being given in the words of the editor. Decisions under statute law are indexed under the proper headings in the cumulative index, page 633 et seq.]

DECISIONS UNDER STATUTE LAW.

EMPLOYERS' LIABILITY—EMPLOYMENT OF CHILDREN IN VIOLATION OF STATUTE—REMEDIES—NEGLIGENCE—*Stehle et al. v. Jaeger Automatic Machine Company, Supreme Court of Pennsylvania, 69 Atlantic Reporter, page 1116.*—George Stehle, an infant, sued by his next friend, George Stehle, the latter suing also in his own right, to recover damages for injuries received by the former while in the employment of the company named. The verdict was for the company in the court of common pleas of Philadelphia County, which judgment was, on appeal, reversed, and a new trial ordered.

The grounds for reversal appear in the opinion, which was delivered by Judge Elkin, and which reads as follows:

The error which ran through the whole trial in the court below was failure to give effect to the act of May 2, 1905 (P. L. 352). The case was tried under the rules of law applicable to cases of negligence where master and servant, both being competent to enter into a contract of employment and each presumably capable of appreciating the dangers thereof, are charged with the duty of exercising due care, the master in providing reasonably safe appliances and machinery, and the servant of using ordinary care to avoid open and obvious dangers. These rules have no application to the facts of the present case. The boy appellant was born June 6, 1892, was first employed by appellee company in April, 1905, and was injured January 27, 1906, being at the time of the injury under 14 years of age. Section 2 of the act of 1905 provides that no child under 14 years of age shall be employed in any establishment to which the provisions of the statute apply, and section 4 requires that "no minor under sixteen years of age shall be permitted to clean or oil machinery while in motion or to operate, or otherwise have the care or custody of, any elevator or lift." It seems to be conceded that the place where the boy worked was an establishment within the meaning of the act, and hence the case must be considered in the light of the statute regulations and requirements. That the legislature, under its police power, has the authority to enact such legislation, is not an open question in this State. In the recent case of *Lenahan v. Pittston Coal Mining Company* (218 Pa. 311, 67 Atl. 642 [Bulletin No. 74, p. 239]), we held

that it was within the power of the legislature to fix an age limit below which children should not be employed in dangerous kinds of work, and that an employer who violated the law by engaging a child under the statutory age did so at his own risk, and in an action of trespass for personal injuries sustained in such employment the master can not set up as a defense either the assumption of risk or the contributory negligence of the child servant. This seems to be the rule adopted by the courts of other jurisdictions as well as our own. (*Sipes v. Michigan Starch Company*, 137 Mich. 258, 100 N. W. 447.)

The suggestion made by the learned counsel for appellee that a violation of section 2, which prohibits the employment of children under 14 years of age, can only be punished as a misdemeanor as provided in section 23, can not be accepted as a sound rule of law. It is true the statute is penal, and violations of its provisions, upon conviction, are punishable by fine or imprisonment, but these remedies are not exclusive, and do not supersede the right of action for damages in a civil proceeding. (*Narramore v. Railway Company*, 96 Fed. 298, 37 C. C. A. 499 [Bulletin No. 26, p. 202].) Whether the employment of a child in a hazardous occupation, when such employment is prohibited by law, is negligence per se, or only evidence of negligence to be considered in connection with other facts tending to show negligence, the authorities are not entirely agreed, but, for the purpose of the present case, we hold that the employment of the boy under 14 years of age to do any kind of work in the establishment prohibited by section 2, and of his having been employed to clean or oil machinery while in motion, prohibited by section 4, were both questions of fact to be submitted to the jury as evidence of negligence, and, if the injury resulted by reason of the employment prohibited by law, there can and should be a recovery in the case. In the view thus taken of the act of 1905, it is not important to consider the assignments of error relating to the duty of an employer to properly instruct a young and inexperienced employee in the use of dangerous machinery. As to the prohibited employment the master is not relieved by giving instructions.

We do not consider it necessary to consider in detail the numerous assignments of error, because they nearly all relate wholly or in part to the force and effect to be given the act of 1905, and, with this fundamental and controlling question now settled, no difficulty will be experienced in the proper application of the rules of law applicable thereto when the case is again tried.

Judgment reversed, and a venire facias de novo awarded.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—SAFETY APPLIANCE LAW—DELEGATION OF LEGISLATIVE POWER—CONSTRUCTION OF STATUTE—DUTY AS TO MAINTENANCE OF PRESCRIBED CONDITION—*St. Louis, Iron Mountain and Southern Railway Company v. Taylor*, Supreme Court of the United States, 28 Supreme Court Reporter, page 616.—George W. Taylor, a brakeman in the employ of the company named, was killed while attempting to couple cars, and his administratrix sued to recover damages for his death. The right to recover was based solely

on the failure of the railroad company to equip the cars in question with drawbars conforming to the safety appliance law of March 2, 1893. Judgment was for the plaintiff in the circuit court of Crawford County, Ark., and, on appeal, in the supreme court of the State. This judgment was reversed in the Supreme Court of the United States because of faulty instructions given by the court below as to the construction of the regulations fixing the height of drawbars, while as to other points the contentions of the railroad company were denied.

The opinion of the court was delivered by Justice Moody, who, after disposing of the question of jurisdiction, took up the provision of the law that authorized the American Railway Association to designate to the Interstate Commerce Commission the standard height of drawbars for freight trains and the maximum variation allowable between the drawbars of empty and loaded cars. The height was fixed by the Association and promulgated by the Commission at 34½ inches from the top of the rails to the center of the drawbars for cars on standard gauge railroads, with a maximum variation of 3 inches between the drawbars of empty and loaded cars. The company attacked this provision of the law as being an unconstitutional delegation of legislative power, as to which contention Justice Moody said:

Nothing need be said upon this question except that it was settled adversely to the contention of the plaintiff in error in *Buttfield v. Stranahan* (192 U. S. 470, 48 L. Ed. 525, 24 Sup. Ct. Rep. 349)—a case which, in principle, is completely in point.^(a)

The next point considered turned on the instructions as to the prescribed height of the drawbars. The court below gave the proper statement that the height for an empty car should be 34½ inches, but added that for loaded cars there should be a uniform height of 31½ inches, and that if such was shown not to be the case, the defendant was negligent. One of the cars to be coupled was fully, and the other lightly, loaded. One had an automatic coupler and the other a link and pin coupler, the law at the time not requiring all cars to be provided with the automatic coupler. The question turned on the height of the drawbars, as to which the testimony was conflicting. Speaking of the force of the regulation and its construction by the court below, Mr. Justice Moody said:

We think that it requires that the center of the drawbars of freight cars used on standard-gauge railroads shall be, when the cars are empty, 34½ inches above the level of the tops of the rails; that it permits, when a car is partly or fully loaded, a variation in the height

^a The case cited was one in which a law authorizing the Treasurer of the United States to appoint a board of tea experts who should classify teas imported into the United States, and to adopt such classification in the collection of duties, etc., was held valid.

downward, in no case to exceed 3 inches; that it does not require that the variation shall be in proportion to the load, nor that a fully-loaded car shall exhaust the full 3 inches of the maximum permissible variation and bring its drawbars down to the height of $31\frac{1}{2}$ inches above the rails. If a car, when unloaded, has its drawbars $34\frac{1}{2}$ inches above the rails, and, in any stage of loading, does not lower its drawbars more than 3 inches, it complies with the requirements of the law. If, when unloaded, its drawbars are of greater or less height than the standard prescribed by the law, or if, when wholly or partially loaded, its drawbars are lowered more than the maximum variation permitted, the car does not comply with the requirements of the law.

The clear intentment of these instructions was that the law required that the drawbars of a fully-loaded car should be of the height of $31\frac{1}{2}$ inches, and that if either of the cars varied from this requirement the defendant had failed in the performance of its duty. We find nothing in the remainder of the charge which qualifies this instruction, and we think it was erroneous. We should be reluctant to insist upon mere academic accuracy of instructions to a jury. But how vitally this error affected the defendant is demonstrated by the fact that its own evidence showed that the drawbar of the fully-loaded car was $32\frac{1}{2}$ inches in height. Under these instructions the plaintiff was permitted to recover on proof of this fact alone. From such proof a verdict for the plaintiff would logically follow. The error of the charge was emphasized by the refusal to instruct the jury, as requested by the defendant, "that when one car is fully loaded and another car in the same train is only partially loaded, the law allows a variation of full 3 inches between the center of the drawbars of such cars, without regard to the amount of weight in the partially-loaded car." This request, taken in connection with the instruction that the drawbars of unloaded cars should be of the height prescribed by the act, expressed the true rule, and should have been given.

The last question considered related to the duty devolved upon the company by the rule requiring the limits of the variation named to be observed, which was disposed of by holding the duty to be an absolute one, requiring actual performance, and that the employer was not relieved by proof of reasonable care. On this point the court said:

The evidence showed that drawbars which, as originally constructed, are of standard height, are lowered by the natural effect of proper use; that, in addition to the correction of this tendency by general repair, devices called "shims," which are metallic wedges of different thickness, are employed to raise the lowered drawbar to the legal standard; and that, in the caboose of this train, the railroad furnished a sufficient supply of these shims, which it was the duty of the conductor or brakeman to use as occasion demanded. On this state of the evidence the defendant was refused instructions, in substance, that, if the defendant furnished cars which were constructed with drawbars of a standard height, and furnished shims to competent inspectors and trainmen, and used reasonable care to keep the drawbars at a reasonable height, it had complied with its statutory duty, and, if the lowering of the drawbar resulted from the failure to use the shims, that was the negligence of a fellow-servant, for which

the defendant was not responsible. In deciding the questions thus raised, upon which the courts have differed (*St. Louis & S. F. R. Co. v. Delk*, 158 Fed. 931), we need not enter into the wilderness of cases upon the common-law duty of the employer to use reasonable care to furnish his employee reasonably safe tools, machinery, and appliances, or consider when and how far that duty may be performed by delegating it to suitable persons for whose default the employer is not responsible. In the case before us the liability of the defendant does not grow out of the common law duty of master to servant. The Congress, not satisfied with the common law duty and its resulting liability, has prescribed and defined the duty by statute. We have nothing to do but to ascertain and declare the meaning of a few simple words in which the duty is described. It is enacted that "no cars, either loaded or unloaded, shall be used in interstate traffic which do not comply with the standard." There is no escape from the meaning of these words. Explanation can not clarify them, and ought not to be employed to confuse them or lessen their significance. The obvious purpose of the legislature was to supplant the qualified duty of the common law with an absolute duty, deemed by it more just. If the railroad does, in point of fact, use cars which do not comply with the standard, it violates the plain prohibitions of the law, and there arises from that violation the liability to make compensation to one who is injured by it. It is urged that this is a harsh construction. To this we reply that, if it be the true construction, its harshness is no concern of the courts. They have no responsibility for the justice or wisdom of legislation, and no duty except to enforce the law as it is written, unless it is clearly beyond the constitutional power of the lawmaking body. It is said that the liability under the statute, as thus construed, imposes so great a hardship upon the railroads that it ought not to be supposed that Congress intended it. Certainly the statute ought not to be given an absurd or utterly unreasonable interpretation, leading to hardship and injustice, if any other interpretation is reasonably possible. But this argument is a dangerous one, and never should be heeded where the hardship would be occasional and exceptional. It would be better, it was once said by Lord Eldon, to look hardship in the face rather than break down the rules of law. But when applied to the case at bar the argument of hardship is plausible only when the attention is directed to the material interest of the employer to the exclusion of the interests of the employee and of the public. Where an injury happens through the absence of a safe drawbar there must be hardship. Such an injury must be an irreparable misfortune to some one. If it must be borne entirely by him who suffers it, that is a hardship to him. If its burden is transferred, as far as it is capable of transfer, to the employer, it is a hardship to him. It is quite conceivable that Congress, contemplating the inevitable hardship of such injuries, and hoping to diminish the economic loss to the community resulting from them, should deem it wise to impose their burdens upon those who could measurably control their causes, instead of upon those who are, in the main, helpless in that regard. Such a policy would be intelligible, and, to say the least, not so unreasonable as to require us to doubt that it was intended, and to seek some unnatural interpretation of common words. We see no error in this part of the case. But, for the reasons before given, the judgment must be reversed.

EMPLOYERS' LIABILITY — RAILROAD COMPANIES — VALIDITY OF FEDERAL STATUTE IN THE DISTRICT OF COLUMBIA—DAMAGES—*Hyde v. Southern Railway Company, Court of Appeals of the District of Columbia, 36 Washington Law Reporter, page 374.*—This case was before the court of appeals for a decision as to the constitutionality of the Federal liability law of 1906 in its application to employees of common carriers in the District of Columbia. This law was declared unconstitutional by the Supreme Court of the United States, in so far as it related to commerce between the different States. (*Howard v. Railroad Company, 28 Sup. Ct. 141; see Bulletin No. 74, p. 216.*) In the case in hand, however, it was held by the court of appeals that as the Congress of the United States had plenary power to legislate for the District of Columbia and the Territories, any decision as to the validity or nonvalidity of the law as to other localities did not affect the question as it relates to the District, and the law was declared to be in effect in this jurisdiction.

The title of the act is "An Act relating to liability of common carriers in the District of Columbia and Territories and common carriers engaged in commerce between the States and between the States and foreign nations to their employees." Similar language is used in the opening clauses of section 1 of the law. (For the law in full see Bulletin No. 74, pp. 216, 217.)

After quoting the title and first section of the law, and announcing the ruling of the Supreme Court, Chief Justice Shepard, speaking for the court of appeals, said:

We think it is evident from the language of the title and the first clauses of section 1 of the act that, in its enactment, Congress contemplated the exercise of its plenary power in the District of Columbia and the Territories, and of only its limited power in the States. This general intention, as regards the latter, was thwarted by the use of language, appropriate to the exercise of its plenary power, but not to the exercise of its limited power, making the common carrier, who might also be engaged in interstate commerce, liable to "any of its employees," without discrimination in respect of the character of the business in the conduct of which the injury might occur. We do not think, however, that the purpose to make the new rule of law, defining the relations of master and servant, apply to "every common carrier engaged in trade or commerce in the District of Columbia or in any Territory of the United States," is made abortive by the next clause making it apply also to common carriers engaged in commerce among the several States. This second clause or provision can be eliminated without impairing the particular effect or changing the meaning of the first in any particular.

The provisions of the section being deemed severable, the next question is, whether it is plain that Congress would have enacted the act with the unconstitutional provision eliminated? We see no reason to doubt that it would have done so. One of the special duties of Congress is to legislate generally for the benefit of the inhabitants of the District of Columbia and the Territories. That

duty in respect of the adequate protection of the employees of common carriers engaged in trade or commerce therein, is in no wise dependent upon its performance in respect of the limited class of employees subject to its jurisdiction in the several States. The latter may be, and are in great measure, protected by State legislation. They have another power to appeal to for their relief, while those in the District of Columbia have not.

The action was brought to recover damages in the amount of \$20,000 on account of the death of the intestate, and the question consequently arose whether such an amount could be awarded, since section 1301 of the Code of the District of Columbia, giving a right of action for injuries causing death, limited the amount recoverable under said section to \$10,000. The court held that limitation of the code section did not apply to the liability law, saying that—

The objects of the two [statutes] are different. The first remedies a defect in the common law by conferring a right of action in all cases of injuries resulting in death, when, had the injured party survived, he would be entitled to an action, and in no other. The second changes the common law in relation to master and servant by giving the latter a right of action for *all damages* for injuries occasioned by the negligent acts of fellow-servants, and modifies the law as to the contributory negligence of the injured person. It then extends this right of action, in case of death, to the personal representative of the deceased. The damages so recovered are distributed in a different manner from that provided in the earlier law, and are not expressly discharged of the debts or liabilities of the deceased as therein provided. The third section relates to employment contracts, insurance, relief benefits, etc., not mentioned in the Code, and provides a measure of set-off growing out of the same. Moreover, the act operates alike in the several Territories, where it does not appear that there is any statute limiting the amount of recovery.

Notwithstanding the invidious distinction made between the beneficiaries of the separate statutes in respect of the amount of the recovery, we see no reason why they may not stand together and operate according to their terms in cases coming under them respectively. In conferring a right of action where none existed at common law, Congress can couple the grant with any condition it may deem reasonable in the particular case, and is not bound to affix the same condition to all similar grants. Instead of intending to bring the parties to actions created by the act, under the operation of section 1301 of the Code, we think that the intention was to give it operation according to its terms. It makes complete provision for all of its purposes, and leaves nothing to be supplied by the provisions of the Code. Each is to be construed, therefore, as applying to cases arising under it, and to none other.

EMPLOYER'S LIABILITY—RAILROAD COMPANIES—VALIDITY OF FEDERAL STATUTE IN THE TERRITORIES AND THE DISTRICT OF COLUMBIA—*Atchison, Topeka and Santa Fe Railway Company v. Mills*, Court of Civil Appeals of Texas, 108 Southwestern Reporter, page 480.—I. L.

Mills, an employee of the company named, had sued in the district court of El Paso County and recovered damages for injuries received in the course of his employment in the Territory of New Mexico. The case is of interest only as it presents a ruling as to the validity of the Federal liability law of 1906 in its application to railroads in Territories. Judge Fly, speaking for the court, held that the judgment of the Supreme Court in the Howard case (28 Sup. Ct. 141; see Bulletin No. 74, p. 216) was to the effect that the law was invalid in all respects and as to all places, as appears from the following extracts from his opinion:

While the act was declared unconstitutional and invalid because it was an invasion of the rights of the States, yet it was declared to be invalid, not only as to the States, but also as to the Territories and the District of Columbia. In the opinion of the court, delivered through Mr. Justice White, it was shown that the parts of the act were so blended and interwoven that if one part was unconstitutional the whole act was destroyed. In concluding the opinion of the court Mr. Justice White said: "Concluding as we do that the statute, while it embraces subjects, within the authority of Congress, to regulate commerce, also includes subjects not within its constitutional power, and that the two are so interblended that they are incapable of separation, we are of the opinion that the courts below rightly held the statute to be repugnant to the Constitution and nonenforceable." The two subjects referred to as being interblended mean of course the constitutional and unconstitutional parts of the statute, and must refer to that part of the law relating to the territories and the District of Columbia and that part relating to the States.

Courts have no means of knowing that Congress would have passed the law in question, and made it applicable to the District of Columbia and the Territories alone, and to strike out portions of a section of the act to make it conform to that hypothesis would be making, by judicial construction, a law which Congress did not make.

EMPLOYMENT OF CHILDREN—AGE LIMIT—CONSTITUTIONALITY OF STATUTE—VIOLATION—EMPLOYMENT AS CAUSE OF INJURY—*Starnes v. Albion Manufacturing Company, Supreme Court of North Carolina, 61 Southeastern Reporter, page 525.*—Harry Starnes was employed in a cotton mill as a sweeper in the spinning room, and was injured while visiting his father, who worked at a carding machine in the same establishment. He was less than 10 years of age when the accident causing his injury occurred, and his employment was in violation of section 3362 of the Revisal of 1905, which prohibits the employment in factories of children under 12 years of age. Damages for injuries were awarded in the superior court of Mecklenburg County, from which judgment the company appealed, basing its action on three grounds: First, that the law deprives the citizen of his property rights without due process of law, and denies to certain citizens the equal protection of the law; second, that it was error for the court

to charge that employment in violation of the act was negligence per se; and third, that the court had improperly refused to instruct that unless the child was injured while engaged in the work for which he was hired the employer was not liable.

None of these grounds was allowed by the supreme court, and the judgment of the court below was affirmed. The position of the court on each of the points involved is set forth in the following extracts from its opinion, as delivered by Judge Brown:

Child labor laws have been adopted in nearly all the States of this Union and Canada, and are in force in nearly all the governments of Europe and of the Australian Continent. They are founded upon the principle that the supreme right of the State to the guardianship of children controls the natural rights of the parent, when the welfare of society or of the children themselves conflict with parental rights. In this country their constitutionality, so far as we can ascertain, has never been successfully assailed. The supervision and control of minors is a subject which has always been regarded as within the province of the legislative authority. How far it shall be exercised is a question of expediency, which it is the province of the legislature to determine.

The constitutional guaranty of the liberty of contract does not apply to children of tender years nor prevent legislation for their protection. "So far as such regulations control and limit the powers of minors to contract for labor, there has never been," says Mr. Tiedmann, "and never can be, any question as to their constitutionality. Minors are the wards of the nation, and even the control of them by parents is subject to the unlimited supervisory control of the State." (1 Tiedmann, State & Fed. Con., p. 325.)

The statute we are considering appears to have been framed in good faith, and for the purpose of promoting the general welfare by protecting minors from injury by overwork, from liability to injury by machinery in large manufacturing plants and by facilitating their attendance at schools. It is not an undue restriction of the right of the parent to the labor of the child, assuming that he has such rights, when opposed to the general welfare. It does not close to him all fields of employment for his child, but only those in factories and manufacturing establishments, where the child is more likely to be injured in health or body, or from his childish carelessness, as in this case, than in many other useful employments.

The right to the labor of the child is not a vested right in the parent, nor is it of any more importance than the right to control its education. Both are subject to the paramount power of the State when it deems it necessary to exercise it for the general good. Upon this idea compulsory education laws have been enacted in a large number of States and their constitutionality has been sustained where drawn in question.

As to the second contention, it is decided squarely against the defendant in the recent case of *Leathers v. Tobacco Co.*, 144 N. C. 330, 57 S. E. 11 [Bulletin No. 71, p. 373], where it is held not only that a cause of action accrues to the child, if injured, but that it is negligence per se, and not merely evidence of negligence, to violate the statute. The writer can add nothing to the well-considered

opinion of Mr. Justice Connor in that case, and we find nothing in the well-prepared brief of defendant which induces us to reverse it.

This brings us to consider defendant's third contention, a matter not fully determined in the *Leathers Case*, and which may be thus stated: That the plaintiff can not recover because the employment of him, although willfully and knowingly done in violation of the statute, was not the proximate cause of his injury, inasmuch as he did not receive the injury while in the discharge of the duties to which he was assigned. It is true that the plaintiff was not engaged in performing his duties in the spinning room, and had gone to the lower floor where the carding machines were, and got his hand caught in one and badly cut. Under such circumstances there are respectable courts which hold that the injury is not the proximate result of a violation of the statute, because not received in performing the work the child was assigned to do, and that therefore the employer is not liable. We are not impressed with the persuasive authority of those precedents, and are not inclined to follow them. To do so, would, in our opinion, unduly restrict the liability of the employer, and would be contrary to the evident intention of the legislature. The act was designed not only to protect the health, but the safety, of children of tender age from the indiscretion and carelessness characteristic of immature years. One who knowingly and willfully violates its provisions is not only guilty of an indictable offense, but he commits a tort upon the rights of the child and should be judged as a culpable wrongdoer, and not as one guilty of mere negligence. The injury done the child is a willful wrong and does not flow from the negligent performance of a lawful act. We think that the breach of the statute constitutes actionable negligence wherever it is shown that the injuries were sustained as a consequence of the wrongful employment of the child in the factory in violation of the law. In this case we think there is a direct causal connection between the unlawful employment of the plaintiff and the injuries sustained by him. By employing this boy of 10 years in violation of the law, the defendant exposed him to perils in its service which, though open to observation, he, by reason of his youth and inexperience, could not fully understand and appreciate.

INJUNCTION—STRIKES—PICKETING—PROTECTION OF EMPLOYEES AS MEMBERS OF LABOR ORGANIZATIONS—CONSTITUTIONALITY OF STATUTE—AGREEMENTS BETWEEN MINE OWNERS—CONSPIRACY—EVIDENCE—*Goldfield Consolidated Mines Company v. Goldfield Miners' Union, No. 220, et al., United States Circuit Court, District of Nevada, 159 Federal Reporter, page 500.*—The Goldfield Consolidated Mines Company is a Wyoming corporation which owns mines in the Goldfield district, besides owning about 97 per cent of the stock in a number of other mine corporations, the mines of which it operates, together with its own, for the benefit of all parties in interest. The Goldfield Miners' Union is an unincorporated association of perhaps 2,000 members, and is a branch of the Western Federation of Miners, likewise a voluntary, unincorporated association. The complainant company charged that the miners' union, though

claiming to be a labor organization, is a criminal society, organized to agitate certain so-called political questions, tending by its attitude and activities to subvert the general principles of government, and maintaining as one of its cardinal principles that there shall be a continuous state of warfare between employers and employees. It was further alleged that the union encouraged employees to take the property of employers by stealth and force, and, if the demands of employees be not complied with, to destroy the property of the employers. Unreasonable demands enforced by threats, boycotts, picketing, assaults, deportations, etc., were included in the charges, and a preliminary injunction was asked for to prevent interference with the operation of the mines, the intimidation of employees, congregating on and picketing the company's works, and the maintenance of a boycott against the company, its agents, or employees; also prohibiting the holding or attending of any meeting of the Goldfield Miners' Union.

The charges made were denied in detail, and the company itself was charged with violating the provisions of the constitution of Wyoming against consolidations and combinations to prevent competition. It was also alleged that this and other companies had conspired to oppress, boycott, and drive out the members of the Western Federation of Miners, and that the present strike was due to the fact that the members of the union were unwilling to accept depreciated paper in lieu of money for wages.

The opinion of the court was preceded by a lengthy statement of facts setting forth the conditions at the mines for the year preceding the rise of the present cause of action. It was sworn to and not denied that the employees in the Mohawk mines had stolen not less than \$1,000,000 worth of ore within a period of six months. In pursuance of an order of the Federal court, watchers were sent to the Mohawk property to prevent the stealing of ore, whereupon the employees, all of whom were members of the defendant union, refused to work below the surface where watchers were stationed. One of these watchers testified that he was waited on by members of the union and remonstrated with on the ground that no good union man would act as watcher. He refused to give up his position and was shortly afterwards expelled from the union. The union subsequently demanded his discharge, claiming that he had violated his obligations. The company refused to discharge him, and a strike was ordered. On settlement, wages were advanced and provisions made for change rooms in which the men were to change their outer garments, a watchman being present.

In March, 1907, a dispute arose between the Federation of Miners and the American Federation of Labor as to jurisdiction over mine carpenters, whereupon the mines were closed until the unions should

adjust their differences. At about this time a restaurant keeper in Goldfield, who had failed to comply with certain demands of the miners' union, was shot. The homicide was charged against a walking delegate and another member of the union, who were convicted. Attorneys to defend the persons charged were furnished by the union, which also paid them, at first \$5 per day, and afterwards \$50 per month, from the time of their conviction up to December 6, 1907. An agreement among employers prevented the employment of any member of the Western Federation of Miners during the latter part of March, but on April 1, 1907, a settlement between the miners and operators was reached by which the miners' union was allowed jurisdiction over all employees in and around the mines, mills, and smelters, "including timbermen, timber framers, engineers, blacksmiths, and machinists, and excepting superintendents and managers." Provisions as to the declaration of strikes, boycotts, and lockouts were included, and the term of the agreement was fixed at two years.

At the annual convention of the Federation of Miners, held in June, 1907, the declaration that it was one of the objects of the organization "to use all honorable means to maintain and promote friendly relations between ourselves and our employers, and endeavor by arbitration and conciliation, or other pacific means, to settle any difficulties which may arise between us, and thus to make contention and strikes unnecessary," was stricken out, and nothing of similar or equivalent meaning added. It was also made easier to declare strikes, and contracts or agreements for a specific length of time were prohibited.

In August change rooms were installed, as arranged for, but the water furnished was impure, and the arrangements otherwise so inconvenient and unsatisfactory that a strike was immediately inaugurated, which was settled by arranging for rooms in which the men could change clothing, without the humiliation and inconveniences of the old system; former employees were to be reinstated, and the jurisdiction of the union over employees was explicitly declared.

In November, 1907, the shortness of the supply of gold coin was advanced by the employers as a reason for paying wages one-half in gold and one-half in cashiers' checks, issued by John T. Cook & Co., bankers, Goldfield, Nev. The president of the miners' union declared that a later notice made all wages payable in scrip. After conference, the miners refused to work unless the wages were paid either in cash or in checks satisfactorily guaranteed. To this the mine owners replied that they could not "offer a guarantee in addition to that offered by the local banks for cashiers' checks issued by the local banks," whereupon, on November 27, 1907, the members of the union ceased work. Federal troops were brought to Goldfield

on the 6th of December, and three days later the Mine Owners' Association, to which the complainant belonged, gave notice of a reduction of wages and of a purpose to employ no members of the Goldfield Miners' Union. The President of the United States appointed a special commission to report on conditions in Goldfield. The report was admitted in evidence, and is in part as follows:

The question as to possible future violence and disorder on the withdrawal of the troops we find to depend largely on the personnel of the Miners' Union and their leaders in particular. A number of these leaders are represented to be men of radical socialistic beliefs and in favor of forcibly asserting what they hold to be their rights. Goldfield, being one of the newest and richest gold-mining camps of the West, attracted many of the most adventurous and radical characters in the Miners' Union, and while many of these have recently left, it is believed that there remain a considerable number of men whose records in other mining camps presage ill for the future of law and order in Goldfield, if Federal troops are withdrawn.

It was strongly urged that the experience of other mining camps with the Western Federation of Miners gave good grounds for the belief that should the mine operators insist on maintaining their position, as above stated, serious disorder would be likely to ensue immediately upon the withdrawal of the troops. All this, however, is purely a matter of future possibilities and not of actual present or past disorders in Goldfield. From the almost unanimous consensus of opinion of all witnesses we are satisfied that in the Miners' Union of Goldfield there are not over a few hundred men of a dangerous type—men who would readily resort to violence to accomplish their ends. The great majority, probably over three-fourths of the union, while loyal to their organization, were conceded to be men of law-abiding tendency who would not willingly initiate or support deliberate violence. But there is likewise little doubt but that this large proportion of orderly men have in the past permitted themselves and their organization to be dominated and controlled in its public actions by vicious leaders, and have lacked either the coherence or the courage to suppress this element and conduct the affairs of their organization in a way to command public respect and confidence. In the early part of the present year the Miners' Union of Goldfield permitted a celebration to be held by the union and a procession under its auspices to march through the streets of that city carrying the red flag of anarchy as a sole emblem, and bearing aloft legends and mottoes of an incendiary character. It is claimed that but a small proportion of the Miners' Union took part in the procession, but it had received the official sanction of the union, and, so far as is publicly known, was never repudiated by that body. Their personal good character can not excuse members of the Goldfield Union for permitting their leaders to outrage decent sentiment, and can not save the organization to which they belong from bearing the reputation it has earned. By permitting their organization to be managed and controlled by men of violent tendencies, the union as a body has thus laid itself open to the reproach of being a vicious organization, and has furnished a foundation for the fear existing in Goldfield that it will support violence and disorder to win its present strike.

In view of the foregoing facts, we believe there is considerable danger that serious disorders will be attempted if the troops be withdrawn and the mine operators insist on carrying out their publicly announced policy.

The legislature of Nevada, meeting in special session, petitioned for the retention of the Federal troops until a State constabulary should be organized.

A strike committee of five members took charge of the strike "with power and authority" to regulate it. This committee declared it has kept in touch with the progress of the strike, and that instructions were issued to all the members of the union as to their conduct. They were directed to commit no act of trespass or intimidation, and not to carry any deadly weapon. The company adduced evidence, part of it photographic, of the gathering of groups ranging in numbers from 15 persons to 150 and even 200, in such manner as to interfere with the movements of the workmen going to and from work; the use of threatening and insulting language was also alleged, so that some of the employees had already quit work and others would follow unless adequate protection should be given, though there were plenty of men ready and willing to work on complainants' terms, if they were protected.

The injunction was granted by Judge Farrington, who after stating the above facts said in part:

Evidence as to the probable and possible injuries which may result to complainant if members of the Goldfield Miners' Union are permitted to assemble and hold meetings pending this suit is not of such a character as to warrant an interlocutory order forbidding such assemblages. An injunction pendente lite should not usurp the place of a final decree neither should it reach out any further than is absolutely necessary to protect the rights and property of the petitioner from injuries which are not only irreparable, but which must be expected before the suit can be heard on its merits. Only those issues will be determined which are necessary factors in granting or denying a temporary restraining order. It is not necessary that the complainant's rights be clearly established, or that the court find complainant is entitled to prevail on the final hearing. It is sufficient if it appears that there is a real and substantial question between the parties, proper to be investigated in a court of equity, and in order to prevent irremedial injury to the complainant, before his claims can be investigated, it is necessary to prohibit any change in the conditions and relations of the property and of the parties during the litigation.

As to the charge that the company violated the Wyoming law as to combinations, the court said:

Sufficient evidence has not been introduced to support a finding that complainant has violated this statute. It has been held that, where a suit is brought by a corporation to enforce or protect a private right by injunction, a claim that the corporation is illegal or is a monopoly can not be made collaterally as a defense.

The court then referred to the deportations, in several cases of which the victim had been ordered to leave by an officer of the union, violent beatings being administered in some instances.

The next subject considered was the constitutionality of chapter 111, Acts of 1903 of the Nevada legislature, which forbids employers to require employees to enter into an agreement to join or not to join any labor organization as a condition of employment. This law was held to be violative of the provisions of the fourteenth amendment to the Constitution of the United States, on grounds set forth in the following quotation from Judge Farrington's remarks. After quoting the statute he said:

The obvious purpose of the Nevada statute just quoted is to invade and control the discretion of the employer in selecting his men. If the statute is valid, an employer can not make it a condition on which he will hire men that they shall not belong to any particular labor union; to do so is made a crime, no matter how vicious, turbulent, or lawless the organization may be. This statute lays no similar restriction upon the employees. Their freedom of contract is unrestrained. There is nothing in the statute which forbids union men from discriminating against nonunion men, or nonunion men from discriminating against union men. There is nothing which prevents union men from exacting, as a condition upon which they will work, an agreement that every nonunion man must be discharged, or join the union.

It may be to the advantage of a manufacturer to do business exclusively with some one labor union; its patronage may be immensely valuable to him; but to contract with his men that they must be members of such union, it matters not how wisely that organization may be controlled, or how great the advantage and profit to the master and his servants, if the latter become members of the organization, the employer, under the statute, is guilty of a crime if he insists, as a condition of employment, that his employees shall join the union. On the other hand, another operator may believe that the success of his business depends upon the undivided loyalty and support of his men, and that he can not have such loyalty and support if they belong to, and are bound to submit to the control of, a labor organization; but he also violates this statute by exacting as a condition of employment that his men shall not join a union.

It is a constitutional right of an employer to refuse to have business relations with any person or with any labor organization, and it is immaterial what his reasons are, whether good or bad, well or ill founded, or entirely trivial and whimsical. Under the conditions existing in Goldfield at the time the resolutions were published, it is possible that the only practical method of exercising this right was to require all employees to refrain from being or becoming members of the Western Federation of Miners. Thus we have a right guaranteed by the Constitution, and its exercise blocked, or at least hindered and restricted, by the statute of Nevada. It is too clear to require a citation of authorities that the legislature has no power to restrict the exercise of a constitutional right, unless the interests of the public, as distinguished from the interests of the individual, or of a class of individuals, demand such restraint. The act so forbidden by the legislature must be detrimental to the public welfare, and the health,

safety, or morals of the community to justify such interference. There can be no pretense here, and none is made, that the execution of such a contract as the one in question has any tendency to injure the health, safety, or morals of the public, or of either employer or employees. It is clear that the Nevada statute deprives the employer of the right to contract as to certain matters which may be vital to him, and that it also, while not preventing, does obstruct the exercise of his right to exclude objectionable persons from his employ. The fact that the statute includes an element which is not found in any other similar statute to which attention has been called, in that it prohibits contracts requiring employees to join a union as a condition of employment, in no wise heals its invalidity; the added element simply makes larger and wider the invasion of the liberty of the employer to fix the terms and conditions upon which he will contract for labor.

Statutes similar to the Nevada act in question have existed in other States, but, in every jurisdiction where their validity has been called in question, they have been held invalid, under the constitutional provision that no one shall be deprived of life, liberty, or property without due process of law. [Cases cited.]

Continuing, the court said:

An unlawful conspiracy is a combination between two or more persons to do an unlawful or criminal act, or to do a lawful act by criminal or unlawful means. (8 Cyc. 620.)

An examination of the resolution in question shows that the association agreed to do five acts, namely: First, to reduce the wages of the men employed by the various members of the association; second, to resume operations, giving preference to old employees; third, to reduce the cost of living in Goldfield District 20 per cent; fourth, to have no further dealings with the Goldfield Miners' Union, or any organization affiliating with the Western Federation of Miners; fifth, to require each person presenting himself to any member of the association for employment to sign, as a condition of such employment, an agreement that he is not, and during the period of his employment will not become, a member of respondent union. The fifth item may be regarded as the means agreed upon to accomplish the first and the fourth. None of the proposed acts are either unlawful or criminal. For these reasons I must hold that complainant in entering into the agreement with the other members of the Goldfield Mine Operators' Association, which is embodied in the resolutions of December 7, 1907, was not guilty of any unlawful conspiracy against the respondents.

Is the evidence sufficient to show the establishment of a picketing system and concerted action by the pickets to coerce and intimidate the employees of the mining company, and thus prevent complainant from operating its mines? The union, by unanimous vote of those present at the meeting of November 26th, declared a strike, and later appointed a strike committee composed of five members. This committee is clothed "with power and authority to oversee and regulate the conduct of said strike." The members of this committee state in their joint affidavit that the committee and the union found the picket system "practically useless," and therefore picketing "has been adopted only to a limited degree;" that is to say, men are not

assigned to any particular duty or place, no picket lines or squads of pickets have been organized, but union members in numbers ranging from 30 to 75 approach complainant's premises at the hours of the morning and afternoon change of shifts, and they do this at their own volition, without any concert among themselves, and without special, or any, direction from, or understanding with said union, or any of its members, officers, or committees. This picket system as organized, evidently contemplated the active participation of every member of the union, for the affidavit states "that all of the miners belonging to said union were instructed * * * to peaceably address any nonunion man willing to listen, and endeavor in a lawful manner to persuade him to join said union, or refrain from injuring the cause of labor by taking the place of nonunion [sic] miners."

It is as unreasonable to suppose that these men assembled without design or concert among themselves, and without any direction or understanding with the union or its officers or committees, as it is to suppose that the wheels of a watch get into place by accident. Why are all miners belonging to the union instructed to peaceably address any nonunion miner willing to listen, and endeavor in a lawful manner to persuade him to join the union, etc? If it is not intended that the instruction should be obeyed, why is it given? It can not be assumed for an instant that the person who gave such instructions, or that any or all of the miners who received them, had any other thought but that they were to go where the nonunion men were to be found, and address them.

Each party has the right to enter into lawful competition for the support of the nonunion miners, and to endeavor by peaceful argument or persuasion to secure their cooperation, provided the persuasion is of such a character as to leave the person solicited feeling free to do as he pleases, and he is not persuaded to do that which in him would be unlawful. This is so, because workmen, when free from contract obligations, have a legal right, singly, collectively, or as a union, to quit work; that is, to strike, and, having this right, they have the further right to use such lawful means to make the strike effective as are not inconsistent with the rights of others. (*Karges Furniture Co. v. Amalgamated Woodworkers' Union*, 165 Ind. 421, 75 N. E. 877. [Bulletin No. 63, p. 546].) The mining company has the right to employ nonunion men to take the places vacated by those who quit work. The latter have no legal interest or concern in the contract between the company and its new employees. The places which they vacated to strike are no longer theirs, and never again will be theirs unless they are reemployed. It is difficult to see, when a man has voluntarily given up a job, how he can maintain that he has a shadow of claim or right to the vacated place. (*Union Pac. R. Co. v. Ruef* (C. C.), 120 Fed. 102, 128. [Bulletin No. 47, p. 967].)

There is no law, nor is it within the power of this or any other court, to make an order by which the Goldfield Consolidated Mines Company can be compelled against its will to reemploy any miner who quit, or any member of the Western Federation of Miners; neither can any member of that organization be compelled against his will to work for the company. The nonunion men have the same right to work or not work, to agree upon the terms of employment, or to quit work, as union men, no more, no less. They have a perfect right to take the vacated jobs if they can agree with the company upon terms, and the

respondents have no legal right to dictate what those terms shall be. They have the right to seek employment, to come and go from their work, or to go where they please on the public thoroughfare, without fear or molestation, threats, violence, or insult of any kind. They have a right to come and go without being picketed, or compelled to listen to argument or persuasion, whether it be peaceful or irritating. The pickets have no legal right to insist that any nonunion man shall listen to their solicitations if he is unwilling to do so, it matters not how peaceful and friendly such solicitations may be. (*Union Pac. R. Co. v. Ruef (C. C.)* [supra].) These considerations are true, because, under our system of government, every man has the right to enjoy his liberty and property until it is taken away from him by due process of law. To guard these rights is the true end and aim of our civilization. The existence of such a right in one man necessarily imposes upon every other man the duty to respect it, and upon the government and the courts the duty to guard and protect it. And it necessarily follows that any attempt to intimidate a man in order to compel him to refrain from exercising a legal right is unlawful, and this is true no matter whether the attempt is made by one man or many, or by a corporation or a labor union. Hence, if the pickets, or members of the respondent union, who gather at or near complainant's premises at the time of the morning and afternoon change of shifts, assail nonunion men with threats, ridicule, and insult, or follow them to or from their work with vile language and abusive epithets in order to compel them to quit work, or refrain from offering their labor to the complainant, they are guilty of unlawful conduct.

Whether the union is an original conspirator or whether, after it became aware of the coercive conduct of the pickets, it became a party to the conspiracy by cooperating with and supervising them, is immaterial. In either event, the Miners' Union is a conspirator and is responsible for the acts of its coconspirators.

In order to demonstrate that the union originated or joined this conspiracy, it is not necessary to prove any formal or explicit agreement. The existence of a conspiracy may be shown by circumstantial evidence.

The system of picketing was adopted by the union and its strike committee, and this picketing has been and is under the supervision of the union, through its strike committee. Each member of the committee has taken an active interest in the strike, keeping in close and constant touch with all union men engaged therein, and all, or nearly all, of the pickets are members of the union. Even if it were possible to believe that the union was innocent of any improper design when it adopted the picketing system "to a limited degree," it is idle to contend that it has remained in ignorance of the misconduct of its pickets. The knowledge of the strike committee was the knowledge of the union. Nevertheless, the union, through its strike committee, continued its supervision of the strike, and its members continued to threaten and abuse nonunion men. The coercion was in behalf of the union, for the benefit of the union, and in aid of the strike inaugurated by the union. The union can not now, while it is consciously and uncomplainingly accepting the benefits of this terrorism, relieve itself from responsibility by saying that it has always instructed the miners against lawlessness of every sort.

The policy and purpose of the Miners' Union and its leaders finds expression in the constitution of the Western Federation of Miners and in the constitution of the Goldfield Miners' Union No. 220.

The court then cited the changes made at the convention of the Federation in 1907, mentioned above, and said:

Whether there shall be constant turmoil and contention must depend upon the personnel of the men who control the action of the union. The industrial struggle between employer and employee, with occasional truces, whose length can not be regulated by agreement with the local union, must go on until, as the preamble to the present constitution of the Western Federation of Miners says, "the producer is recognized as the sole master of his product."

Conciliation, arbitration, and the promotion of friendly relations between employer and employee, and the elimination of strikes and contention, are no longer among the declared objects of the Western Federation of Miners, and its policy seems to be to render strikes easier, settlements more difficult, and settlements by local unions for any definite period impossible. The preamble to the constitution of the Goldfield Miners' Union declares that "the working class and the employing class have nothing in common. There can be no peace so long as hunger and want are found among millions of working people, and the few, who make up the employing class, have all the good things of life. Between these two classes a struggle must go on until all the toilers * * * take and hold that which they produce by their labor." In the early part of the year 1907, a celebration was held by the Goldfield Miners' Union and "under its auspices a procession marched through the streets of that city carrying the red flag of anarchy as a sole emblem, and bearing aloft legends and mottoes of an incendiary character."

About the beginning of the strike or lockout of March, 1907, the following notice was sent to the then manager of the Goldfield Consolidated Mines Company:

"GOLDFIELD, NEVADA, *March 8th, 1907.*

"MR. JOHN W. FINCH,
"Nixon Building.

"DEAR SIR: Goldfield Miners' Union No. 220, W. F. M., have passed a law that all workers employed around the mines must hold a membership card in this union, and if they do not join our members shall refuse to work. This pertains principally to carpenters. We demand that members of our organization only shall follow that work and shall draw the same wages as men now following that line of work. This goes into effect at once."

In the agreement by which that strike was settled, it was conceded that the union should have jurisdiction over all men employed in and around the mines, mills, and smelters, excepting superintendents and managers. A similar concession is to be found in each agreement recited in the record between complainant and the respondent union by which a strike was settled.

These considerations strengthen my conviction that injunctive relief is necessary. One of the most important elements to be considered in determining whether injurious conduct is to be apprehended

which ought to be restrained by order of this court is the character of the dominant faction of the Goldfield Miners' Union. If that faction is animated by the spirit and the purpose exhibited in the constitutional amendments made by the Western Federation of Miners, it would be remarkable if intimidation and coercion were not resorted to if necessary to secure "jurisdiction over all men regularly employed in and around the mines." When the spirit which prompts conciliation, arbitration, and friendly relations between employer and employee is banished, we are not far from anarchy.

An injunction pendente lite will issue against all of the respondents, except C. E. Mahoney.

INTERFERENCE WITH EMPLOYMENT—INTIMIDATION—*State v. McGee*, Supreme Court of Errors of Connecticut, 69 Atlantic Reporter, page 1059.—Frank J. McGee was convicted in the court of common pleas of New Haven County of intimidating an employee to cause him against his will to refrain from working for the McLagon Foundry Company, and appealed. The conviction was secured under the provisions of section 1296, General Statutes of 1902, and the appeal was based on two principal grounds—one that there were erroneous instructions as to the meaning of the section in question, and the other that the rules of procedure had not been complied with in the trial court. A new trial was granted on the second ground named, the construction put by the lower court on the section involved being approved. The portion of the opinion of the court which relates to this section is reproduced.

Judge Thayer, speaking for the court, said:

The information is in four counts, each for a distinct offense, charging that the accused "did by threatening, following, mocking, and annoying intimidate" the person named in such count to compel him, "against his will, to refrain from working in the employ of the McLagon Foundry Company." Gen. St. 1902, sec. 1296, provides that "every person who shall threaten or use any means to intimidate any person to compel such person, against his will, to do or abstain from doing any act which such person has a legal right to do, or shall persistently follow such person in a disorderly manner, or injure or threaten to injure his property with intent to intimidate him, shall be punished by fine or imprisonment." The accused did not demur to the information or move in arrest of judgment after verdict, but now claims that the information does not charge an offense under the statute. The gist of the offense created by the statute is the threatening or following, etc., with the purpose or intent to intimidate, and it is not necessary, to constitute the crime, that the person who is threatened shall in fact be intimidated, provided the threats are such as are calculated to intimidate or put in fear an ordinarily firm and prudent man. The court, therefore, correctly refused to charge, as requested, that actual intimidation was necessary, and committed no error in charging, as it did, "that it is not necessary, in order to prove a crime under the statute, that the person to whom the threats

are made, or whom it is sought to intimidate, should be, in fact, made to fear or be in fact intimidated. It is only necessary to prove that the threats and acts are such as would be calculated to cause the ordinary man to fear or to affect his mind in such a way that he could not voluntarily act or assent."

LABOR ORGANIZATIONS—UNINCORPORATED ASSOCIATIONS AS PARTIES—BOYCOTTS—ATTACHMENT FOR DAMAGES—*Branson v. Industrial Workers of the World et al.*, *Supreme Court of Nevada*, 95 *Pacific Reporter*, page 354.—L. C. Branson was owner and publisher of two newspapers, the Tonopah Daily Sun and the Goldfield Daily Sun, in the offices of which, as he alleged, he employed only union labor and paid union wages. The defendants, certain unincorporated associations, their officers and a number of members named (taken as representing the associations collectively), were charged by Branson with a conspiracy to destroy the value of his property, because he refused to require his employees to become members of the Industrial Workers of the World. Specific acts of intimidation and violence were adduced as showing the method of the boycott, which extended to newsboys, dealers, advertisers, customers for job work, and the employees of the plaintiff. Judgment in damages in the amount of \$25,000 was asked for, and an attachment was obtained on an affidavit that the "defendants had criminally incurred the obligations for which the suit has been commenced."

The case was heard in the circuit court of Nye County, in which certain of the defendants appeared only for the purpose of making a motion that the complaint be stricken from the files, the summons vacated, quashed, and set aside, and that all proceedings so far had be annulled and declared void. This motion was based on the grounds that parties defendant were not properly designated in the complaint, the action not being brought against natural or artificial persons, but against voluntary, unincorporated associations, which are not legal entities and have no existence apart from the persons comprising them. Other motions were made of similar intent, alleging nonconformity to the practice act of the State and the insufficiency of the complaint to state facts which would support a charge of either criminal or civil liability. The circuit court dismissed the action and dissolved the attachment in so far as it related to each and all the unincorporated associations, whereupon Branson appealed, securing a reversal of the judgment of the court below, the case being remanded for further proceedings. The grounds for this reversal appear in the following extracts from the opinion of the court:

It will be observed that in the first motion quoted above it was asked, first, "that the complaint on file herein be stricken from the files"; second, "the summons vacated, quashed, and set aside";

third, that "all and singular the proceedings so far had * * * be annulled and declared void"; fourth, "that said action be dismissed." There is no specific provision in the statutes for motions of this character, and they should not be granted unless the moving party is clearly entitled to the relief asked for, and the pleadings are not capable of being amended so as to cure the defect complained of. It is manifest that the court could not appropriately grant any of the things demanded in the motion when there were any proper parties defendant. If the court had denied the motion, respondents could not have successfully assigned error, even though it be conceded that it was not proper to make voluntary unincorporated associations of persons, parties to actions merely by the name of the association. In this case, the plaintiff is a natural person, and numerous natural persons are included as defendants. While the trial court could not grant the motion in its entirety, as prayed for, it did grant it in part, by dismissing the action in so far as the voluntary unincorporated associations named and set forth in the complaint were concerned. It seems to be conceded that the effect of this order would be practically to strike from the complaint all defendants, excepting the few designated by name, while the many hundreds who compose the organizations would in no sense be parties to the action. For the purposes of this opinion, we will treat it as having such effect.

While a voluntary unincorporated association can not by its name alone sue or be sued, nevertheless, such an organization has its rights and responsibilities, which rights it may enforce by appropriate procedure; and, by the same procedure, it necessarily follows, it may be held accountable for its responsibilities. These organizations usually comprise a large membership, and are governed in accordance with prescribed rules and regulations by officers elected for the purpose. They frequently not only possess a large amount of property, but exercise vast powers in the communities in which they exist. It is conceded that they may sue or be sued by joining all their members, but this, if requisite, would impose great inconvenience upon the organizations themselves, as well as hardship upon those seeking redress against such organizations, for it would be impossible, in many instances, for nonmembers to obtain the names of more than a small fraction of the membership, without great effort, delay, and probable expense. It is manifest, we think, from the complaint, that the plaintiff proceeded upon the theory that the persons constituting the defendant organizations, being numerous, he could proceed against a few personally, who would represent the whole body of the defendant organizations. Counsel for appellant now contends that the defendant organizations are properly made defendants upon this theory. It has long been recognized in proceedings in equity that an action may be instituted by or against a voluntary unincorporated organization, where the members comprising the same were numerous, by simply joining as defendants a few natural persons, members of the organization, sufficient to represent and protect the interests of the entire membership, and that the few may be made plaintiffs or defendants for all. Were this a proceeding in equity, there would be no question about the right of plaintiff to make certain of the members of the defendant organizations defendants for all their associates who had a common interest. This, however, is an action at law for *damages*, and the equity rule does not prevail unless made so by

statute. Section 14 of the Civil Practice Act of this State (Comp. Laws, sec. 3109) provides: "Of the parties to the action, those who are united in interest shall be joined as plaintiffs or defendants; but if the consent of any one, who should have been joined as plaintiff, can not be obtained, he may be made a defendant, the reason thereof being stated in the complaint; and when the question is one of a common or general interest, of many persons, or when the parties are numerous, and it is impracticable to bring them all before the court, one or more may sue or defend for the benefit of all. Tenants in common, joint tenants, or copartners, or any number less than all, may jointly or severally bring or defend or continue the prosecution or defense of any action for the enforcement of the rights of such person or persons." We think it was the intention of the legislature, by this provision of the statute, to make the equity rule applicable to all proceedings in the courts of this State, whether the same be of a legal or equitable nature. Under our code provision, there is but one form of civil action, and legal and equitable distinctions, so far as practice is concerned, are largely, if not entirely, done away with. To hold that the defendant organizations can not be sued without including all members, which are so numerous, scattered and difficult to ascertain might cause such hardship and delay as would amount to a denial of justice. It is hard to conceive of any case to which the statute would be more applicable in its provisions than where the parties are numerous one or more may sue or defend for all. We think, as the court did not and could not grant the relief demanded in the motion, it should have denied it in toto, leaving respondents to whatever remedy they may have been entitled to by demurrer.

It appears from the order of the lower court that the attachment was only dissolved as against the voluntary unincorporated associations designated by name in the complaint, but as to the natural persons therein named it was not dissolved. From this it would appear that the trial court did not consider the writ as against the natural persons defendant to have been improvidently issued, and in this view the trial court was clearly correct. What we have said in reference to the voluntary associations as parties defendant applies with equal force to the order dismissing the attachment as to them. If the attachment is good as against any defendants, it is good as to all.

It is contended by counsel for respondents that the affidavit fails to sufficiently charge that the alleged obligation of defendants to pay damages to plaintiff was criminally incurred. The affidavit charges such liability in the language of the statute (Comp. Laws, sec. 3218), and, in addition, makes the complaint with its allegations a part of the affidavit. There can be no question that a criminal conspiracy is alleged in the affidavit under all the authorities. The law, upon one portion of the case as it appears from the affidavit, is concisely stated in 8 Cyc. 639, as follows: "Neither at common law nor under statutes modifying the common-law doctrine is it lawful for workmen to combine to injure another's business by causing his employees to leave his service by intimidation, threats, molestation, or coercion. Such a combination constitutes an indictable conspiracy." Again, the same authority, in continuation of the same general topic, says: "This term (boycott) ordinarily means a confederation, generally secret, of many persons whose intent is to injure another, by preventing any and all persons from doing business with him through fear of incurring

the displeasure, persecution, and vengeance of the conspirators. The character of agreement included in the term defined is highly unlawful and is an indictable conspiracy." Such a conspiracy is made punishable both by fine and imprisonment under section 4751 of the Compiled Laws of Nevada.

In *Ex parte Boyce*, 27 Nev. 229, 75 Pac. 1, we said: "Labor properly directed creates wealth, and all honest toil is noble and commendable. The right to acquire and hold property guaranteed by our Constitution is one of the most essential for the existence and happiness of man, and for our purposes here we may consider it to be the cornerstone in the temple of our liberties, and that it implies and includes the right to labor. It may also be granted that labor, the poor man's patrimony, the creator of wealth, and upon which all must depend for sustenance, is the highest species of property, and the right to toil is as sacred and secure as the millions of the wealthy; but individual rights, however great, are subject to certain limitations necessary for the good of others and the community, and inherent in every well-regulated government. * * * Broadly speaking, the right to acquire and hold property, which presupposes the one to labor at all ordinary pursuits, is subordinate to this greater obligation not to injure others, individually or collectively, and to contribute and aid in the support of the government in all its legitimate objects."

It necessarily follows that any attempt by conspiracy to interfere with these fundamental and essential rights or by threats, intimidation, and violence, to prevent the employer from hiring or the employee from laboring, is unlawful under our system of government by which all men are free and equal. No organization or combination of men or individuals can lawfully prevent the exercise of these constitutional rights by all others. If it were legal for the defendant organizations or the officers and members by force, threats, or intimidation to prevent the employees of plaintiff from continuing in their employment, it would be equally so for the unions to which plaintiff's employees belong and for owners' and operators' associations or for other organizations or the officers and members thereof by force, threats, or violence to prevent the members of the defendant organizations from working, even to the extent of starvation. As the law bears equally upon all, it is self-evident that if any labor union or organization could by threats, force, and intimidation lawfully prevent the members of any other union or organization from laboring for employers, or could by force, threats, and intimidation prevent employers from hiring members of other unions or organizations, that every other union or organization would have the same and equal right, resulting eventually in control by the organization exercising the most force and violence, and in the overthrow and subversion of law and order.

Referring to the section of the crimes and punishments act of Nevada relative to conspiracy, counsel for respondents in his brief says: "The conspiracy statute, which was but declaratory of the common law, was amended in 1887, Compiled Laws, sec. 4751, and provides: 'That no part of this act shall be construed in any court of this State to restrict or prohibit the orderly and peaceably assembling or cooperation of persons employed in any profession, trade or handicraft for the purpose of securing an advance in the rate of wages, or compensation, or for the maintenance of the same.' * * * Whether the means by which labor combinations seek to effect its objects and

purposes is criminal or not depends upon the lawfulness of the mode or action taken in and by which injury is inflicted or threatened—that is, whether it is an actionable wrong or is merely such as the law denominates *damnum absque injuria*.”

According to the complaint and affidavit in this case, the defendants are not within the provisions of the amendment of the statute in any sense whatever. No question of an advance in the rate of wages paid employees, or the maintenance of the same, is here involved. Upon the contrary, the complaint alleges that plaintiff was employing “union” men and paying “union” wages. So far as the complaint now before the court is concerned, it appears that both the plaintiff and his employees were entirely satisfied with existing conditions. The damage alleged in this case to have been sustained was not caused by the employees of plaintiff seeking by peaceable means to maintain or better their condition, but by outsiders, who are alleged to have demanded of plaintiff that he compel his employees to become members of what would appear to be a rival labor organization, and, upon his refusal, entered into the conspiracy charged, to compel him to accede to their demands, or they would ruin his business. Nor is it charged even that defendants were seeking to accomplish their declared purpose by “orderly and peaceably assembling or cooperation;” but, upon the contrary, by means of intimidation, threats of violence and actual violence. Counsel for respondents has not cited us an authority, nor do we think one can be found, holding that what defendants are charged in the complaint with having conspired to accomplish by resorting to intimidation and acts of violence, did not state facts which constitute crime.

It is not necessary that all of the facts alleged to have been committed in pursuance of the conspiracy charged be, in themselves, of a criminal nature; and it is unnecessary to determine whether each and every specific act alleged is unlawful. Some of the acts charged are known by all men to be unlawful, and when they are performed as a part of the means to carry out the purpose which the complaint alleges the defendants combined to accomplish, a conspiracy, criminal in its nature, is sufficiently charged, at least for the purposes of an affidavit for attachment.

In considering the order of the district court, similarly as questions upon demurrer, the charges and allegations of the complaint are assumed to be true for the purposes of the appeal, to the end that plaintiff may have an opportunity to present proof, but whether the defendants did in fact commit the unlawful acts charged by the complaint or not remains to be determined upon the trial, and by a jury, if any of the parties desire one, after defendants have been given an opportunity to make denial or answer setting up any defense they may have, and all parties have presented their evidence and been heard.

For the reasons given, the orders appealed from are reversed, and the cause is remanded for further proceedings.

PICKETING—USE OF STREETS—PERSONAL LIBERTY—MUNICIPAL REGULATION—CONSTITUTIONALITY—*City of St. Louis v. Gloner*, Supreme Court of Missouri, 109 Southwestern Reporter, page 30.—Section 1460 of the municipal code of the city of St. Louis, among

other provisions, subjects "any person or persons who shall lounge, stand, or loaf around or about or at street corners or other public places, in the day or night time," to a penalty of not less than five nor more than fifty dollars. Jacob Gloner was arrested for an alleged violation of this regulation, and was acquitted by the St. Louis court of criminal correction, whereupon the city appealed. On the appeal the judgment of the court below was affirmed, the ordinance in question being declared unconstitutional.

The evidence showed that Gloner and three others were doing duty as pickets in the conduct of a strike in the city of St. Louis and that he was standing at a corner of the street to intercept workmen in the service of the employer against whom the strike was directed, with the purpose of persuading them not to continue in his service. Gloner refused to "move on" when directed by the police to do so, and was placed under arrest.

Judge Burgess, who delivered the opinion of the court, after stating the facts, said in part:

While the city of St. Louis is given power by the second clause of section 26, art. 3, of its charter (Ann. St. 1906, p. 4809), to regulate the use of its streets, the question here presented is as to whether it had the right, under the provisions of its charter, to pass the ordinance upon which this prosecution is based, and which makes it a misdemeanor, punishable by fine, for any person to lounge, stand, or loaf around or about or at street corners or other public places, in the day or night time. There is no pretense that defendant was at the time of this arrest in any way obstructing the street, or interfering with the rights of any other person, or conducting himself in a disorderly manner; the only charge against him being that he violated said ordinance on the 4th day of August, 1904, and on divers other days and times prior thereto, by unlawfully lounging, standing, and loafing around and about and at certain public street corners and other public places, to wit, Eleventh street and Washington avenue, in the day and night time. While the city has the undoubted right, under its charter, to regulate the use of its streets, it has no right to do so in a way that interferes with the personal liberty of the citizen as guaranteed to him by our constitution and laws. Under this ordinance it is just as much an offense to stand or loaf around upon the corner of one of the streets in the city for five minutes as for two hours or more, time not being an ingredient of the offense; and this, too, regardless of the fact that the offender may not during that time impede the passage of other pedestrians or otherwise interfere with the rights of others. The defendant had the unquestioned right to go where he pleased, and to stop and remain upon the corner of any street that he might desire, so long as he conducted himself in a decent and orderly manner, disturbing no one, nor interfering with any one's right to the use of the street.

It is, however, said for the city that "John Smith, a member of the public, has no right for his own private purposes, whatever they may be, to take his stand for a period of two hours every day upon a particular portion of the public street in a great and populous city."

That he has such right there can, in our opinion, be no question, providing he conducts himself in a peaceful, orderly manner, disturbs no one, and commits no overt act. In this case, according to the testimony of the officer who made the arrest, he arrested the defendant for the purpose of preventing him from doing "picket duty," which, as explained by the court, consisted in requesting men not to take the places of strikers. In the case of *Marx & Haas Jeans Clothing Co. v. Watson* (168 Mo. 133, 67 S. W. 391 [Bulletin No. 44, p. 157]) Judge Sherwood, speaking for the court, said: "If these defendants are not permitted to tell the story of their wrongs, or, if you please, their supposed wrongs, by word of mouth, or with pen or print, and to endeavor to persuade others to aid them by all peaceable means, in securing redress of such wrongs, what becomes of free speech, and what of personal liberty? The fact that in exercising that freedom they thereby do plaintiff an actionable injury, such fact does not go a hair towards a diminution of their right of free speech, etc., for the exercise of which, if resulting in such injury, the constitution makes them expressly responsible." In *Beaton v. Tarrant* (102 Ill. App. 124) it was held that workmen may use the streets and highways in a manner not inconsistent with public travel, for the purpose of entreaty, inducement, and peaceable persuasion in good faith.

Our conclusion is that the ordinance is unconstitutional and invalid, because it infringes upon the right of personal liberty, and is unreasonable and oppressive.

DECISIONS UNDER COMMON LAW.

LABOR ORGANIZATIONS—BENEFITS—CONSTRUCTION OF BY-LAWS—*Donavan v. Friendly Society of Engravers, Supreme Court of Rhode Island, 69 Atlantic Reporter, page 554.*—John F. Donovan was a member of the above-named (incorporated) society, and had been discharged from employment on account of serving on a committee of the organization to confer with his employer. A by-law of the union provided that where members were discharged for such cause, they would be paid, from the funds of the union, "their full wages as received by them at the date of such discharge, until they shall again obtain steady employment." Subsequent to his discharge, Donovan secured employment, but not as an engraver, and in an action to recover the amount of his wages, judgment was given him for full wages as an engraver, without reference to the amount received by him in his new employment. The society took an appeal to the superior court of Providence County, which directed a new trial to be had unless Donovan should remit all but \$100 of the sum awarded. On his appeal to the supreme court, the judgment of the superior court was affirmed, as is shown by the following extract from the opinion of the court:

We think the construction placed upon the words "steady employment" by the superior court was correct. There is no express limitation in the by-law to employment in the trade of an engraver, and it is not necessary to imply such a limitation in order to carry

out the object of the provision. The design was evidently to give aid to a member while he should be unable to provide for his own support. The necessity for such aid ceases when he accepts steady employment in any occupation. The construction urged by the plaintiff would require the defendant to pay him \$20 a week indefinitely, though he might be earning a larger amount if it were not earned as an engraver, which seems to us a greater burden than the defendant can be presumed to have intended to assume.

LABOR ORGANIZATIONS—BOYCOTT—INJUNCTION—CONSPIRACY—FREEDOM OF SPEECH—REMEDIES—*Lindsay & Company v. Montana Federation of Labor et al.*, *Supreme Court of Montana*, 96 *Pacific Reporter*, page 127.—An injunction had been secured by the company named in the district court of Yellowstone County, which was on hearing modified and continued. From the order denying dissolution the Federation appealed, securing a reversal as appears in the following opinion of the court, which was delivered by Judge Holloway, and which is reproduced practically in full:

As modified, the injunction is as follows: "You are hereby restrained and enjoined, until the further order of this court, or the judge thereof, from in any manner, directly or indirectly, interfering with or obstructing the business of plaintiff in the city of Billings and the town of Bear Creek, or in any manner interfering with any of the patrons of the plaintiff from trading or dealing with the plaintiff, or by threats, abuse, intimidation, or other means calculated or intended to interfere with the said business of the plaintiff; from declaring the plaintiff unfair, or from boycotting the plaintiff or from printing, publishing, circulating, posting, or distributing any circulars, posters, handbills, or other written or printed matter containing opprobrious or injurious epithets against said plaintiff or its business; from interfering with, intimidating, boycotting, molesting, or threatening in any manner the patrons or customers of the plaintiff, or any other person or persons, with the purpose of inducing them not to deal with or do business with the plaintiff, and from giving any directions or orders to committees, associations, unions, or any of their officers or members, or otherwise for the performance of any act in this complaint mentioned, or in any manner obstructing or interfering with the regular operations and the conduct of the business of the plaintiff and from in any way or manner threatening, intimidating or interfering with the plaintiff or any of its officers, agents, or employees in the conduct of the plaintiff's business, or in the discharge of the duties of any such officers, agents, or employees." From the order refusing to dissolve the injunction, this appeal was taken.

For the purpose of this decision the allegations of the complaint need not be referred to at length. We are not called upon to determine the propriety of issuing the injunction in the first instance. The question for our decision is: Should the injunction have been continued in force after the hearing on the motion to dissolve was had? And the answer to this must depend upon the facts disclosed *at such hearing*. Stripped of all useless verbiage, these facts appeared: That some time prior to October, 1907, Lindsay & Co. had

been declared unfair by the Miners' Union and Trades Assembly in Helena, and this action had been indorsed by the Montana Federation of Labor, and circulars announcing the fact had been sent to labor organizations throughout the State. On October 25, 1907, the Yellowstone Trades and Labor Assembly, upon information received of the action taken in Helena, passed a resolution which declared Lindsay & Co. unfair, and referred the matter to the grievance committee of that organization to advise the public of the action taken. Acting upon the authority thus given, the grievance committee caused to be published and circulated among the business houses and elsewhere in Billings circulars, of which the following is a copy:

"UNFAIR.

"All laboring men and those in sympathy with organized labor are requested not to patronize Lindsay & Co. who are engaged in the wholesale fruit business, also distributors for cigars and vegetables of all kinds in Billings and vicinity, as they are unfair. We urge the retail merchants, laboring men, and all who are in sympathy with organized labor to place themselves in position to patronize friendly wholesalers. We further desire to call attention to the fact that Lindsay & Co. are operating peddling wagons throughout this city, and we ask the people to guard against patronizing these wagons. We ask this for your own protection and the protection of organized labor.

"[Signed] YELLOWSTONE TRADES AND LABOR ASSEMBLY."

That immediately after the adoption of the resolution and the publication of this circular a large number of retail dealers in Billings, who had theretofore purchased goods from the plaintiff company, ceased to do business with the concern, with the result that the business of the company at Billings was practically paralyzed, and great financial loss resulted. As stated by the witness Vaughan for plaintiff: "We have lost patronage from these merchants on account of being unfair. A circular printed and sent around. There is no other cause." Another witness for the plaintiff testified that at a meeting of the Clerks' Union in Billings early in November, 1907, the defendant Fairgrieve made the statement that "they had Lindsay & Co. on the unfair list, and they had him where they wanted him, and he believed it was a good thing to leave him there." Fairgrieve testified that he did not remember making any such statement. However, this is immaterial to a consideration of the matter before us. From these facts we are to determine the question: Should the injunction have been dissolved? It is to be observed that only two acts of any consequence are shown to have been committed by the defendants: (1) They declared Lindsay & Co. unfair, or, in the language of respondent, boycotted the company; and (2) they published the circular set forth above, that is, they caused it to be printed and circulated. The injunction, as modified, is very sweeping in its terms, and in that form could not be justified by any possible state of facts; but assuming that it was continued for the purpose of preventing the continuance in force of the boycott, and for the purpose of preventing a repetition of the publication of the circular or a similar one, although there is not any evidence of any threat or purpose on the part of the defendants or any of them to repeat that act,

we may consider the question presented to us by reference to these two principal acts mentioned.

1. Does the continuance in force of the resolution of October 25, 1907, amount to such an invasion of plaintiff's rights as will warrant the interposition of a court of equity by injunction?

It is insisted by the respondent company that the defendants organized a boycott of plaintiff's business by agreeing among themselves and with other members of organized labor to withhold their patronage from the plaintiff company, and that they undertook by coercion to compel the retail dealers of Billings and others to likewise withdraw their patronage; that the resolution of October 25, 1907, was intended and understood by the defendants to express the object of their preconcerted design; and that the publication of the circular was for the purpose of intimidating the retail dealers and others. We think it may fairly be said to have been shown by the evidence that upon the adoption of the resolution of October 25th, and upon the intelligence of that action becoming general among the union men there, it was understood among those men that they would not patronize Lindsay & Co. while the interdict was in force, and would not patronize any one who did patronize that company, and that they expected that all retailers and others in sympathy with their organizations would cease trading with the plaintiff company. Whether the acts done by the defendants constituted a boycott, of course, depends entirely upon the definition of that term which may be adopted. We are of the opinion that the evidence shows that these defendants inaugurated a boycott on Lindsay & Co., and that it was still in effect at the date of the hearing. We adopt the language of the Supreme Court of New York in *Mills v. United States Printing Co.* (Sup.) 91 N. Y. Supp. 185, in which the court, speaking through Justice Jenks, said: "I think that the verb 'to boycott' does not necessarily signify that the doers employ violence, intimidation, or other unlawful coercive means; but that it may be correctly used in the sense of the act of a combination, in refusing to have business dealings with another until he removes or ameliorates conditions which are deemed inimical to the welfare of the members of the combination, or some of them, or grants concessions which are deemed to make for that purpose." In *Ulery v. Chicago Live Stock Exchange*, 54 Ill. App. 233, it is said: "A person, with or without reason, may refuse to trade with another; so may 10 or 50 persons refuse. An individual may advise his neighbor or friend not to trade with another neighbor. He may even command when the command amounts only to earnest advice."

But what is there unlawful in the act of the union workingmen of Billings in withdrawing their patronage from the plaintiff? Certainly it can not be said that Lindsay & Co. had a property right in the trade of any particular person. In this country patronage depends upon good will, and we do not think that it will be contended by any one that it was wrongful or unlawful, or violated any right of the plaintiff company, for any particular individual in Billings to withdraw his patronage from Lindsay & Co., or from any other concern which might be doing business with that company, and that, too, without regard to his reason for doing so. But there can be found running through our legal literature many remarkable *statements that an act perfectly lawful when done by one person becomes by some sort of legerdemain criminal when done by two or*

more persons acting in concert, and this upon the theory that the concerted action amounts to a conspiracy. But with this doctrine we do not agree. If an individual is clothed with a right when acting alone, he does not lose such right merely by acting with others, each of whom is clothed with the same right. If the act done is lawful, the combination of several persons to commit it does not render it unlawful. In other words, the mere combination of action is not an element which gives character to the act. It is the illegality of the purpose to be accomplished, or the illegal means used in furtherance of the purpose, which makes the act illegal. (18 Ency. Law (2d Ed.) 82; *Bohn Mfg. Co. v. Hollis*, 54 Minn. 223, 55 N. W. 119.) "A conspiracy is a combination of two or more persons by some concerted action to accomplish a criminal or unlawful purpose or to accomplish a purpose, not in itself criminal or unlawful, by criminal or unlawful means." (Anderson's Law Dictionary, 234.) Chief Justice Parker, in speaking for the Court of Appeals in *National Protective Ass'n v. Cumming*, 170 N. Y. 315, 63 N. E. 369 [Bulletin No. 42, p. 1118], said: "Whatever one man may do alone, he may do in combination with others, provided they have no unlawful object in view. Mere numbers do not ordinarily affect the quality of the act."

If, then, these defendants and their associates did not violate any legal right of the plaintiff in withdrawing their patronage from the company, or in agreeing to withdraw their patronage from any one who might patronize Lindsay & Co., they can not be enjoined from continuing the boycott in force, so long as the means employed to make the boycott effective are not illegal. The evidence shows that the only means used in this instance was the publication of the circular in question, and this brings us to a consideration of the second proposition involved.

2. (a) May a court of equity enjoin the publication by an individual of a circular of this character; (b) if not, may it enjoin such publication when made by a number of individuals acting collectively?

(a) Article 3 of our constitution is entitled: "A declaration of rights of the people of the State of Montana," and section 10 of that article, so far as applicable here, reads as follows: "No law shall be passed impairing the freedom of speech; every person shall be free to speak, write or publish whatever he will on any subject, being responsible for all abuse of that liberty." The language here employed seems too clear to admit of doubt or argument. The one fundamental idea conveyed by this section is penalty for a violation of the privilege, not prevention of its abuse. The language of the section is not susceptible of any other meaning than this: That the individual citizen of Montana can not be prevented from speaking, writing, or publishing whatever he will on any subject. If, however, what he writes or publishes constitutes a criminal libel, he may be held responsible for the abuse of the liberty in a criminal prosecution (Pen. Code, c. 8), or, if what he speaks, writes, or publishes wrongfully infringes the rights of others, he may be held responsible for the abuse in a civil action for damages. If this is not the meaning of the section, it is because the framers employed language which is impotent as a vehicle for conveying their idea.

But it is suggested by counsel for respondent company that these defendants are insolvent, and that a judgment for damages would

be worthless. Even granting this to be so, still the constitution does not discriminate among men according to the amount of their possessions. The guaranty of this section extends as fully to the poorest as to the wealthiest citizen of the State; and, though an abuse of the liberty so guaranteed may result in loss for which there can not be any adequate compensation, the framers of our constitution in preparing it, and the people in adopting it, doubtless concluded that it was better that such results be reached in isolated cases, than that the liberty of speech be subject to the supervision of a censor. To declare that a court may say that an individual shall not publish a particular item is to say that the court may determine in advance just what the citizen may or may not speak or write upon a given subject—is, in fact, to say that such court is a censor of speech as well as of the press. Under similar constitutional provisions, the supreme courts of California and Missouri have reached the same conclusion. (*Daily v. Superior Court*, 112 Cal. 94, 44 Pac. 458; *Marx & Haas Jeans Clothing Co. v. Watson*, 168 Mo. 133, 67 S. W. 391.)

(b) What we have said above, in the first paragraph of this opinion, is likewise applicable here. If any one of these individuals could publish this circular, they may with equal security all join in its publication. We think the evidence produced at the hearing was insufficient to justify the continuance in force of the injunction, and it should have been dissolved.

The order of the court is reversed, and the cause is remanded, with direction to vacate the order heretofore made and enter an order dissolving the injunction.

LABOR ORGANIZATIONS—EXPULSION OF MEMBERS—BENEFICIAL ASSOCIATIONS—FORFEITURE OF POLICY—ACTS OF THIRD PARTIES—MEASURE OF DAMAGES—*St. Louis Southwestern Railway Company of Texas v. Thompson*, *Court of Civil Appeals of Texas*, 108 *Southwestern Reporter*, page 453.—This case was before the court of appeals for the second time, having first been heard under the title, *Thompson v. Grand International Brotherhood of Locomotive Engineers et al.* (91 S. W. 834). The appeal at that time was by W. Z. Thompson from a decision of the district court of Smith County, in which he had sued the Brotherhood, the railway company above named, and certain individuals, to recover damages for alleged wrongful and malicious expulsion from the Brotherhood and for the malicious publication in the Brotherhood Magazine of the statement that he had been expelled for unbecoming conduct and the violation of his obligation.

On the first hearing the district court directed a verdict in favor of the defendants, which judgment was, on appeal, reversed and the case was remanded for a new trial under a ruling that it should have gone to the jury. On this trial judgment was given against the railroad company for \$500 actual and \$2,000 exemplary damages, and the case as to the other defendants was dismissed. The railroad company thereupon appealed, securing first a reversal of the judg-

ment awarding damages, but on rehearing the judgment as above set forth was affirmed.

The facts and much of the opinion of the court in the second trial are presented only by reference to the opinion in the first appeal. It appears that Thompson was a locomotive engineer and had been at one time employed by the St. Louis Southwestern Railway Company, and that he was, prior to his expulsion therefrom, a member in good standing of the Brotherhood of Locomotive Engineers. This organization extends over the United States, Canada, and Mexico, and includes in its membership nearly all the locomotive engineers in its territory. It consists of a "grand brotherhood", incorporated and having its headquarters at Cleveland, Ohio, with a "grand chief engineer," P. M. Arthur; and of subordinate divisions, each presided over by a "chief engineer" and other officials. The order publishes a monthly magazine of large circulation among its members and others as an organ of communication between its members and also with the public. By the rules of the local branches, all expulsions of members are published in this journal. In the case of such expulsions, an appeal lies to the grand chief engineer.

Upon joining the organization the members obligate themselves, among other things, not to "sign or circulate, or cause to be signed or circulated, any paper, circular, petition, or document of any sort whatsoever, calculated to injure or destroy the organization." The order collects dues and provides sick and disability benefits and issues life insurance policies, one of which Thompson held. The amount of Thompson's policy was \$1,500 and he had paid premiums thereon in an amount, approximately, of \$350. Members also hold traveling cards which enable them to travel on all trains without the payment of fare.

Thompson was expelled from his local organization and appealed to the grand chief engineer, who upheld the action of the local body. The charges were made by the first assistant engineer of the local body (No. 201), and were two in number, as follows: "For writing to Mrs. A. H. Penniman and urging her to sue the Cotton Belt Railway for the death of her husband. For going on the witness stand in the Bolton case and testifying against the Cotton Belt Railway to the injury of other brothers and causing the brotherhood at large to lose prestige with the Cotton Belt Railway." The letter mentioned was one that had been written by one J. W. Nichols and was signed by him and by Thompson at the former's request. It was addressed to the widow of a locomotive engineer who had lost his life in a wreck, and urged her not to compromise with the company nor settle with it "for a cent less than \$10,000," and concluded, "We feel certain that you can get \$20,000 from the company, and will only have to pay one-third of it to a lawyer if you will only stand firm and not be persuaded to give away your rights. You can easily

find out who we are from your friends here in Tyler, and if you should want to talk to us we will gladly call to see you. We are not working for the Cotton Belt Company, and we are free to advise you honestly without fear or hope of reward." Thompson sought to justify himself in signing the letter by citing a by-law of the brotherhood that provided that "The widow of any deceased brother shall be assisted in every way and manner which may be deemed proper, etc."

On the first appeal the court had said:

It may be remarked in limine, that the courts are not disposed to interfere with the internal management and conduct of such organizations as the Brotherhood of Locomotive Engineers is shown to be. Its members become such voluntarily and in doing so agree to submit to and abide by the laws of the organization, as embodied in its constitution and by-laws and other rules and regulations lawfully adopted thereunder, and to submit their rights to the judgment of the tribunals provided by the laws of the organization for the government of its members, under the forms of procedure provided. This is true without regard to the fact that the organization is incorporated. "By uniting with the society the member assents to and accepts the constitution and impliedly binds himself to abide by the decision of such boards as that instrument may provide for the determination of disputes arising within the organization. The decisions of those tribunals when organized under the constitution and lawfully exercising their powers, though they involve the expulsion of a member, are no more subject to collateral attack for mere error, than are the judgments of a court of law." (Screwmen's, etc., *Association v. Benson*, 75 Tex. 555, 13 S. W. 380; 1 Bacon on Ben. Soc., Sec. 102.) This doctrine, however, has this important qualification which is as clearly settled as the general rule, that the society "must confine itself to the powers vested in it, and in good faith pursue the matters prescribed by its laws, such laws not being in violation of the laws of the land, or any inalienable right of the member." (*Otto v. Journeymen Tailors' Union*, 75 Cal. 308, 17 Pac. 217, 7 Am. St. Rep. 156.)

We are not prepared to say that if the members of division 201 in good faith and in the exercise of their honest judgment determined that the signing of this letter, under the circumstances, was unbecoming conduct or a violation by appellant of his obligation, and sufficient ground for expulsion, they would not have been authorized under the constitution and by-laws of the order to so determine. A good deal of latitude must necessarily, and should be, allowed the members in determining questions such as these, and courts will not interfere, if they act in good faith. Whether this action of the local subdivision, in so far as it was based upon the signing of the Penniman letter alone, was authorized, would depend upon whether its members in good faith, and in the exercise of their honest judgment, expelled appellant for this cause. The evidence introduced by appellant sufficiently raised this issue which should have been submitted to the jury.

The second specification under the charge presented against appellant is based upon his action in "going upon the witness stand in the Bolton case and testifying against the Cotton Belt Ry. to the

injury of other brothers, and causing the Brotherhood at large to lose prestige with the Cotton Belt Ry." It is not to be supposed that if the action of the members of the subdivision in expelling appellant was based upon this charge alone it would be defended in any court, or that it would be contended that under any permissible latitude of discretion or authority, the members of the local subdivision would have been authorized, under any plea of good faith, to have placed such a construction upon the terms of the by-laws, as that under which they claim to have acted, so far as this specification of the charge is concerned. It can not be assumed that appellant in joining the brotherhood and in assenting to all of the provisions of its constitution and laws could ever have supposed or anticipated that a construction so at war with the laws of the land, with his duties as a citizen and a member of society, and involving such an abnegation of his inalienable rights as such, would be adopted, as would punish him for doing that which the law and his duty as a citizen required him to do.

The provision of the constitution, authorizing subdivisions of the Brotherhood to expel members for unbecoming conduct is not unreasonable, on the contrary is just and proper, but if there be written into it the construction which declared the act with which appellant was charged in the second specification of the charge against him, to be unbecoming conduct and ground for expulsion, there would be no hesitation in declaring it unreasonable, unlawful, and void.

It is charged by appellant that in expelling him the members of the division acted maliciously and with intent to injure him, and as showing that they acted maliciously and not in good faith, evidence was introduced tending to show that the charge of signing the Penniman letter was a subterfuge and a pretext, that there was no disposition on the part of the members to expel him on this ground, and that he would not have been expelled at all for this reason. This evidence shows that it was proposed to appellant that if he would promise to keep off of the witness stand and quit testifying against the railway company he would not be expelled, and that it was only upon his refusal to so promise, but agreeing that he would, when called upon, tell the truth, which was characterized by one of the members as "not sufficient," that it was determined to expel him. The uncontradicted testimony supports this contention of appellant; notably the letter of J. J. Bartholomew to the officers and members of division 201, dated November 15, 1902, and his letter to Arthur, grand chief engineer; the testimony of McCool, one of the defendants "that he named the proposition to Thompson that if he had promised then and there that he would not go on the witness stand against the company as an expert witness, that he would not have voted to expel him;" the fact that Nichols, who wrote the Penniman letter and got Thompson to sign it, and who was also under charges for doing so, made the required promise and got off with suspension for three months. If it be true that the expulsion of appellant was solely upon the ground set out in the second specification, and that the prosecution for writing the Penniman letter was merely for the purpose of affording a color or pretext for the expulsion, then it could not be said that the members acted in good faith and from proper motives in expelling him.

Appellant was not required to exhaust the remedies within the order to correct the wrongful action of the local division, before bringing this suit for damages. It was held by the Supreme Court in *Screwmen's Ben. Association v. Benson*, 76 Tex. 552, 13 S. W. 379, that such a course was necessary before resorting to the extraordinary remedy of mandamus to compel reinstatement, and for obvious reasons pertaining to the nature of that extraordinary remedy. In that case, however, which was a suit for damages as well as mandamus, the court especially limited its decision to that part of the petition which sought a mandamus. Upon a second appeal to this court in which the opinion of the court was by Justice Williams, it was expressly held that the remedy for damages could be prosecuted without having resorted to the appeal within the order. (*Benson v. Screwmen's Ben. Ass'n* (Tex. Civ. App.) 21 S. W. 562.) We are content to follow this opinion, which appears to us to be sound. Reinstatement in the order as a result either of an appeal to the next meeting of the Grand International District Convention, or failing that, by a writ of mandamus, would not have afforded appellant full redress for the injury to his property rights and other damages suffered on account of his expulsion from the brotherhood.

In the second opinion, which, like the first, was delivered by Judge Reese, much consideration was given to assignments of error which were overruled, and which need not be noted here. The question of evidence as to damages and their admeasurement was discussed as follows:

It was not error to instruct the jury to take into consideration, in estimating appellee's damages, the value of his insurance policy in the order. This policy was in favor of his wife for \$1,500, on which appellee had paid assessments for eight or nine years at the rate of \$1.50 to \$3.50 per month. It was a necessary consequence of his expulsion, if not reinstated in 12 months, that this policy should be forfeited without return of any part of the assessments paid. This was sufficient to show that the policy was of some pecuniary value to him. That the amount of this value could not be accurately estimated would not prevent its proper consideration by the jury in finding the amount of his damages. The same may be said with regard to other benefits of which appellee was deprived by reason of his expulsion, including the traveling card which enabled him to travel on all railroad trains in the United States, Mexico, and Canada. If this card was a mere gratuity, as claimed by appellant, and there was no obligation upon it or any other railway company to recognize it, or to allow appellee to ride upon it without paying his fare, nevertheless such cards were in general use, and did enable the holders thereof to ride upon trains without payment of fare, and for this reason it can not be said that the card was not of some pecuniary value, or that this, as an element of damages, was purely speculative. We can not agree with appellant's contention that a member of a society or beneficial order, such as was the Brotherhood of Locomotive Engineers, can not recover such actual damages as he may suffer on account of his wrongful and unlawful expulsion therefrom, but must be limited to nominal damages. Such damages may be of very uncertain value, and the amount thereof very difficult of ascertainment, but *they are not more so than damages for mental or physical suffering,*

loss of reputation, etc., which are freely allowed in many cases. The assignments of error from 7 to 10 can not be sustained.

By the twenty-second assignment appellant complains of the error of the court in overruling its motion for a new trial on the ground that the award of exemplary damages—\$2,000 is grossly in excess of the amount (\$500) awarded as actual damages. There is no fixed rule as to the proportion between actual and exemplary damages in cases where such damages are recoverable. (*Tynberg v. Cohen*, 76 Tex. 416, 13 S. W. 315.) We can not say that the proportion in the present case is so excessive as to lead to the conclusion that the jury were actuated by prejudice, passion, or other improper motive, in all of the circumstances of the case.

The court then took up the question of the ground of the liability of the railroad company in the case, the other defendants in the original action having been held by the trial court not to be liable in damages, on grounds that are not set forth.

The twenty-third assignment complains of the error of the court in overruling appellant's motion to arrest the judgment for the reasons that the jury having by their verdict acquitted the other defendants with whom, as alleged in the petition, appellant had conspired to have appellee expelled, the judgment against appellant should not be allowed to stand. This is not a case in which the conspiracy is the gravamen of the wrong, or where the wrong is one that can only be brought about by a conspiracy. The wrong is the expulsion of appellee from the lodge by the members thereof, and appellant is sought to be charged therewith, on the ground that this action was brought about by its advice and counsel. The defendants are simply charged as joint wrongdoers. The conspiracy charged is, in substance, that the wrong was done by the other defendants at the instigation of appellant. If the evidence and pleadings authorized the verdict against appellant, it is not a wrong of which it can complain that the jury, for reasons entirely incomprehensible to us, did not mete out to the other defendants the same measure of liability they imposed upon appellant, the evidence showing guilt upon their part. If appellee had sued appellant alone, it could not have complained. It could not claim contribution from the joint wrongdoers. The assignment is overruled.

The twentieth assignment of error presents the most serious question in the case, and we are of the opinion, after a careful review of the evidence, that it must be sustained. The assignment presents the question that the verdict and judgment against appellant railway company are against the great weight and preponderance of the evidence, and that they are without any evidence to support them. Substantially all of the evidence to show any connection of appellant, acting through its general superintendent, Green, with the expulsion of appellee from the order, is to be found in the testimony of Bartholomew and Green and is to be gathered from an interview between Green and Bartholomew and two other engineers in the employ of appellant. Bartholomew testified upon the former trial, and his testimony then, standing alone, can hardly be said to differ substantially from his testimony in the present record. It appears clear from the entire testimony in this record that Green's purpose in

sending for Bartholomew and his associates upon the occasion in question was to explain to them that one Tipton, a discharged engineer, had been discharged for not paying his debts when he was able to do so, and to exhibit to them certain letters in support of this fact. Tipton had complained to the brotherhood, of which he was a member, that he had been discharged for testifying against appellant. Green's purpose was to satisfy these parties that this was not true. After the Tipton matter had been disposed of, Green called the attention of Bartholomew and his two associates to the fact, as claimed by him, that appellee [Thompson], Nichols, and Kelton, ex-engineers, were soliciting lawsuits, against the railroad company for certain law firms using their traveling cards to get transportation as much as possible to solicit these lawsuits, and then going on the witness stand as experts against the company and against them. Green wanted to know if the brotherhood was going to tolerate or uphold this kind of business, and said substantially that if the brotherhood upheld the kind of conduct referred to he would feel justified, when a verdict of a jury in such a case showed negligence in an engineer, in discharging the engineer. Bartholomew testified that he understood Green to mean by "upholding that kind of work" if we upheld our members in chasing over the country on traveling cards belonging to the brotherhood soliciting lawsuits for any firm and then going on the witness stand as experts against the company and against us." Green's version of what took place at this interview, leaving out immaterial matters, is as follows: "I told the men that a number of men—I presumed some of them belonged to their brotherhood, I didn't know whether they did or not—were posing as expert witnesses in suits pending against the company. Were not only doing that, but were soliciting suits; that we had just recently settled the claim of Mrs. Penniman for the death of her husband, and at the time the settlement was made she told our claim agent Mr. Yowell that Mr. Kelton had been there to see her, and had urged her strongly not to settle with the company; that there was a firm of lawyers in town that would take her case on one-third, and that she was foolish to settle with the company in any way, shape, form, or manner, and that she had received a letter from Mr. Thompson and Mr. Nichols, which letter was signed as members of the division at Tyler, urging her not to settle the case with the company, but to put her case in the hands of a lawyer and sue. I told them those were acts we objected to. Settlement was made with Mrs. Penniman by the company some time ago—August, 1902. I can't give the exact day. Mr. Yowell had told me what I told these people. Told them that was the character of testimony we objected to, and it would have to stop. I also told them that in some States the laws were such that if an engineer was guilty of carelessness, negligence in stopping his train, as shown by the evidence given by some of these self-imposed experts, that the laws were such as would put them in the penitentiary, and in my opinion they were not only doing the company harm, but were doing the men a harm. I cited the Bolton case. I said to Mr. Bartholomew: 'You were an engineer in the Bolton case. With my experience for some 37 years of railroad work—some 15 years of that devoted to train work strictly—I have looked over the ground carefully, and have looked over your testimony very carefully. I have *considered the weight of the train, speed, grade, and I fully believe*

from my experience that you did everything that you possibly could to stop that train before striking the girl.' I said to him: 'The jury believed otherwise; they took the evidence of the expert witnesses, and they believed otherwise.' 'Now,' I said, 'Mr. Bartholomew, I have made up my mind to do this; to take the same view exactly that the jury takes in these cases. I can't do otherwise. I might be doing you an injustice, but suppose the jury says you are negligent in the Bolton case; that you could have stopped your train; and that you didn't stop it; that you didn't use everything at your command to stop that train. Suppose you run along two months or three months then later and have a similar accident, and it is shown you were careless in the Bolton case, and we have retained you in the service of the company, the jury would certainly censure the company for retaining careless men in its employ, and would unquestionably render a double verdict. I have made up my mind that I am going to take the same view of the case that the jury takes, and if they say that you are careless and negligent, and didn't stop your train—didn't use every means to stop your train—I am going to take the same view, and dismiss you from the service.' Then the discussion came up in regard to the action of Mr. Thompson and others in connection with the Penniman case, and it was discussed and taken for granted that they were not only engaged in soliciting the Penniman case, but in soliciting other cases, and that they were being employed by certain attorneys in town. Mr. Bartholomew then spoke up and said: 'Mr. Green, we have already had these matters up. I have a letter at home from our grand chief engineer, where we have put the matter up as to whether or not we could expel them for those acts.' He says: 'I have a letter from him and it is my intention—' I believe he said, 'to lay the matter before our division.' I said: 'What action you take in your division is nothing to us. We have nothing to do with your division in any way, shape, form, or manner. We are dealing with you as engineers, and whatever action you take by your division is something we have nothing to do, and no advice to give.' So far as I can recall that was about the substance of the interview at that time."

He further testified that he expected the members to use or exert their influence to stop that kind of work, but did not suggest in any way, directly or indirectly, that any action be taken by them as a brotherhood; that he gave them distinctly to understand that he had no advice to give, nor any suggestions to make, in reference to anything being done by the brotherhood as a body.

Now, looking to what was in fact done by the local lodge, which affords basis for this suit, in the trial and expulsion of appellee upon the grounds and for the offenses charged, and particularly in his expulsion upon the second specification, viz., testifying against the Cotton Belt Railway Company in the Bolton Case, it can not be said that the evidence supports a finding that appellant, acting through Green, its general superintendent, either instigated or suggested such action, or conspired with the members of the lodge therein.

On the view of the evidence here indicated, the judgment of the court below was reversed and judgment was rendered for the appellant company. A rehearing was granted, however, on which the court of appeals reversed itself and affirmed the decision of the

lower court on grounds that appear in the following extracts from the opinion delivered at that time:

Upon the hearing of this appeal the judgment of the trial court was reversed, and judgment rendered for appellant upon its twentieth assignment of error presenting the point that there was no evidence upon which appellee could be held liable to appellant for damages in the matter complained of in the petition. Reference to our former opinion will fully disclose the grounds upon which this conclusion is based. Both parties seem rather to have concluded that in our former opinion this question was settled against appellant's contention, which conclusion we can not say was not justified on their part. For this reason probably the question was not presented as fully in the briefs as it otherwise would have been. Upon further consideration of the question, in the light of the able and exhaustive brief and argument of counsel for appellee [Thompson] upon motion for rehearing, we have concluded that we were in error upon this point, and as we have concluded that none of the other assignments of error present grounds for reversal, our conclusion that we were in error in sustaining the twentieth assignment requires an affirmance of the judgment.

The evidence of the acts of Green, appellant's general manager, upon which its liability is predicated, is in the main set out in the original opinion. Other collateral matters, however, which we now think were fairly entitled to be considered by the jury, in determining appellant's liability, are not referred to. This evidence tends to show that Green's purpose was to prevent appellee Thompson from testifying generally, as an expert, in suits against appellant company, and there is more than a suggestion that this referred partly, at least, to his testimony in the Bolton Case, which had been once tried, with an adverse verdict against appellant, based to some extent, at least, on the appellee's testimony as an expert on the operation of air brakes. This case was still pending. Coupled with this was the complaint of Green that appellee and others had been running around stirring up litigation against appellant, and soliciting law-suits for certain attorneys. Probably no legitimate complaint could be made of Green's desire and efforts to put a stop to this practice. But any attempt, by any means, to prevent his testifying in cases against appellant as an expert or otherwise, when called upon, or to interfere with the due administration of the law, in this particular, was unlawful. It not only affected appellee but the general public as well. Our views on this question are sufficiently indicated in our opinion upon the former appeal of this case. (91 S. W. 834 [supra, pp. 610-612].) There is no doubt that there was a distinct threat on the part of Green that if engineers, members of the Brotherhood of Locomotive Engineers, and not in the employ of the company, testified as expert witnesses in suits against the company, and upon such testimony there was a verdict against the company predicated upon the negligence of an engineer, he would "accept the verdict of the jury" and discharge the engineer, unless the brotherhood did something to put a stop to this practice. This was a suggestion to the brotherhood as an organization, and to the members of the lodge of which appellee was a member, to do something to put a stop to *appellee's* so testifying in any way against the company. It is not *necessary* that Green should have had in view the particular action

that was taken by the brotherhood. It is sufficient to show that his purpose was an unlawful purpose, and that he intended, and to some extent, by the influence of his threat to discharge, compelled some action on the part of the brotherhood either to enforce obedience to his expressed desire or to punish him for disobedience. It may be that Green, as general manager, would have been justified in discharging an engineer; or any other employee, in case it had been shown by the verdict of a jury that an accident, resulting in loss to the company, had been caused by his negligence, but it is impossible to see why this result should have been threatened only in cases where the verdict of the jury was predicated upon the testimony of an ex-engineer, member of the Brotherhood of Locomotive Engineers, and then only in case the brotherhood took no step to put a stop to such witnesses testifying as experts, unless for the purpose of controlling the action of such persons through the lodge of which they were members.

RAILWAY RELIEF ASSOCIATION—STATUS—LIABILITY OF RAILROAD COMPANY—*Phillips v. St. Louis and San Francisco Railroad Company*, *Supreme Court of Missouri*, 111 *Southwestern Reporter*, page 109.—Ida Phillips sued the railroad company named to recover damages for the death of her husband, who had been an employee in its service, and the St. Louis circuit court had given a peremptory instruction to find in favor of the defendant company. From this judgment an appeal was taken, the ruling of the court below being reversed and the case remanded for a new trial.

The principal point of interest is the relationship of the employing company and the "Employees' Hospital Association of the Frisco line," a corporation separately incorporated by the leading officials of the railroad company. The company's contention was that it was in no way responsible for the negligence, if any, of the hospital association, that the latter is a distinct corporate entity, and is responsible for its own acts. Phillips had been an inmate of a hospital under the care of the hospital association, and the charge was made that he was negligently allowed to leave the same when in a known unfit condition, and by reason of such negligence had met his death.

The court held to the identity of interest of the two corporations, ruling that the railroad company was answerable for any acts of negligence of the association. The grounds for this position are found in part in the charter of the association, which in section 1 recites the name adopted and in section 2 announces the purpose of the association to be to support a "benevolent and charitable undertaking" in providing medical and surgical treatment, including hospital service, for the employees of the St. Louis and San Francisco Railroad Company and its associated companies. Section 4 declares that "The association shall not engage in business for pecuniary profit in any form, and shall not have any capital stock; the funds

necessary for carrying out its purpose shall be raised in such manner as may be provided by the by-laws." The rules formulated set forth that it is contemplated that for the consideration of the contribution paid monthly by the members of the association, a home and medical attendance for sick and injured members will be provided.

The rules sent out to employees upon the organization of the association are in part as follows:

The Employees' Hospital Association of the Frisco Line, having agreed to furnish necessary medical, surgical and hospital treatment to such employees of the St. Louis & San Francisco Railroad System as may become sick or injured while in the service of said companies, and to erect and maintain a hospital for the use of such sick and injured, and the employees of said system having agreed to contribute to a fund to be paid to said hospital association, to be used and expended by the association for such purpose, the following rules for the guidance of employees are hereby promulgated:

(3) Heads of departments and foremen will be furnished with blank certificates, and will issue them properly signed to such employees as are entitled to the benefit of the hospital association, and every employee receiving such certificate will be entitled to receive from the head of his department free transportation over the company's lines to the hospital, which, in case of emergency, when delay may be dangerous, will be provided by telegraph on application to the proper officer. These certificates are good only in the month for which they are issued.

(4) The company hereby donates to the hospital association the use of its telegraph lines to facilitate the care and treatment of sick or injured employees, and therefore all persons in the service of said companies, and all others are hereby notified that no bills for medical or surgical services, nursing, drugs or funeral expenses, will be paid by these companies unless first authorized by the general claim agent.

(5) In every case of personal injury to an employee, the conductor or foreman of the department in which the party is employed must report particulars as soon as possible by wire to division superintendent or head of department in which the accident occurs. State whether a surgeon has been summoned to attend, and if so, give such surgeon's name, and state further whether the injured man will be transported to general hospital. It will be the duty of the above officers to see that such telegraphic advice is promptly given them, and they will at once telegraph full particulars to superintendent, chief surgeon, and general claim agent.

(13) The persons who have been, or may hereafter be, appointed by the hospital association chiefsurgeon, assistants, hospital dispensary, division and local surgeons and physicians, are hereby appointed chief surgeon, assistants, division and local surgeons and physicians, as the case may be, of the St. Louis & San Francisco Railroad Company, and its leased and operated lines (while they hold such positions in connection with said hospital association), for the care and treatment under the rules above established of all passengers, citizens and nonemployees, who may be injured on the line of this company, and as such will be respected and assisted in the discharge of their professional duties when called upon.

Following are extracts from a circular signed by the vice-president and general manager of the company:

Patients received at the hospital will be provided free of charge, with everything necessary for their careful and comfortable treatment, including the services of the hospital surgeons or physicians, so long as they require surgical or medical attention and obey the rules established for their protection, but not longer than one year, without special authority from the trustees. For the purpose of carrying into effect the above system, and to enable all the employees to become members of and entitled to all the benefits and privileges of said association, notice is hereby given to all concerned that, commencing with the wages for month of July, 1899, which are payable in August, an assessment will be made on the pay rolls (including salary vouchers), as follows: [Then follow the rates of assessment.] This company will pay to said hospital fund as an assessment the sum of five hundred dollars annually, in monthly installments. All employees of the St. Louis & San Francisco Railroad System are entitled to hospital benefits under such rules and regulations as may be established for the government of the hospital. Rules and regulations governing the disposition and treatment of ill and injured employees will be issued and all employees should become familiar with those regulations, as they are established for the benefit of all. The surgeons and physicians of the St. Louis & San Francisco Railroad Company, will, on and after August 1, 1899, be under the control and direction of the chief surgeon of the hospital association, and all ill or injured employees will, on and after that date, be under the care and treatment of the hospital association.

B. F. YOAKUM,

Vice-President and General Manager.

Having set forth the facts, Judge Graves, who announced the opinion of the court, said:

From this circular it appears that no option is left an employee; but, on the other hand, defendant appropriates a certain amount of his wages and furnishes him medical treatment. From oral evidence it appears that the officers of this hospital association were officers of the defendant; the treasurer was the same; the employees made no formal application for admission as members, but only signed pay rolls with the deductions made as provided for in the foregoing documents.

We have set out this evidence, perhaps, in more detail than should have been done, but the relationship between these two corporations is an important one, and not confined to this case alone. To our mind it is immaterial as to the true character of the hospital association as indicated by its charter provisions. It has, however, but few, if any, of the earmarks of a voluntary benevolent association. Nor are there any earmarks of a public charity. What is received is paid for by the recipients. Under the weight of authority it can not be held to be a charitable institution. [Cases cited.] So that the rule that exempts such institutions from liability does not apply. Nor are institutions of the character of the one disclosed by this record exempted from liability by the mere employment of competent servants. They must go further and competently treat the patients received. In such case they occupy the position of ordinary

physicians and surgeons and are bound by the same rules, which are too familiar for repetition here. If they undertake to furnish the treatment, not as a charity, they stand in no different light from the ordinary physician. But this question is really beside the issues in this case. No one can read this record without concluding that, if the thin corporate shell of the hospital association is broken, the yolk therein contained is the defendant. By rule 1, defendant exempts certain mail carriers from assessment, and excludes them from benefits. By rule 3, the heads of the departments and the foremen of the defendant are furnished with blank certificates, which they fill and issue to employees entitled to receive benefits, and such heads of departments and foremen, the alter ego, of defendant, thus decide who shall be treated by the hospital association. By rule 5, the defendant's chief surgeon and general claim agent must be notified, and by rule 6, if the employee injured can be moved to the hospital, the chief surgeon and general claim agent must be notified. Why notify the general claim agent of defendant, if the two corporations were separate and distinct entities, in fact? That the hospital association is operated for the benefit of defendant as much or more than for the benefit of the employees is too apparent from this record. But, beyond all is rule 13, which makes the chief surgeon, and other surgeons of the hospital association, the chief surgeon and the local and division surgeons of the defendant. Eliminating all other matters, this rule 13 makes the chief surgeon and other surgeons the agent and employees of the defendant. But further showing that the hospital association, or its several surgeons, is but the alter ego of defendant, we have circular No. 35, *supra*, by which defendant says to all employees that they will be assessed to pay for this medical attention. No option is given an employee. By force of this rule, defendant says to an employee: "We will take so much of your monthly earnings, and in the event you are hurt or become sick, and in the judgment of the heads of the departments and the foremen in our employ you are entitled to medical treatment, we will furnish it to you through the hospital association." So that it becomes unnecessary in this case to break the extremely thin and attenuated corporate shell of the hospital association, and expose to open view the yolk therein contained. The hospital association, whether it in fact be a separate corporate entity, or in fact the defendant itself, masquerading under an assumed name, is at least the agent and employee of the defendant to perform these particular services. The defendant pays its said agent \$500 annually, and in addition it requires of its employees that they pay to it the remainder, and by it such sum is paid to the agent for these services. To say the least, this hospital association, together with all its surgeons and physicians, are but agents of defendant, and made so by express words in rule 13, *supra*. The negligence of these agents is the negligence of the defendant. As said in the case of *Orcutt v. Century Bldg. Co.*, 201 Mo. 424, 99 S. W. 1062, 8 L. R. A. (N. S.) 929, the defendant holds the purse strings of the hospital association. Not a dollar does it get save through defendant. Defendant pays for itself \$500, and the remainder is paid by the tribute which defendant levies upon its employees, which is collected and paid through defendant. The hospital system is a worthy one, and a well-taken, *advance step*; but, under the record in this case, such hospital association is but the agent of the defendant.

LAWS OF VARIOUS STATES RELATING TO LABOR, ENACTED SINCE JANUARY 1, 1904.

[The Tenth Special Report of this Bureau contains all laws of the various States and Territories and of the United States relating to labor, in force January 1, 1904. Later enactments are reproduced in successive issues of the Bulletin beginning with Bulletin No. 57, the issue of March, 1905. A cumulative index of these later enactments is to be found on page 633 et seq. of this issue.]

OREGON.

ACTS OF 1907.

CHAPTER 53.—*Accidents on railroads.*

SECTION 56. Every railroad shall, whenever an accident attended with loss of human life or limb, or with serious injury to person or property, occurs within this State upon its line of road or on its depot grounds or yards, give immediate notice thereof to the commission, stating the particulars thereof: *Provided*, That neither said report nor any part thereof shall be used as evidence or used for any purpose against such railroad so making such report in any suit or action for damages growing out of any matter mentioned in said report. In the event of any such accident the commission, if it deem the public interest requires it, shall cause an investigation to be made forthwith, which investigation shall be held in the locality of the accident, unless, for greater convenience of those concerned, it shall order such investigation to be held at some other place, and said investigation may be adjourned from place to place as may be found necessary and convenient. The commission shall seasonably notify an officer or station agent of the company of the time and place of the investigation. The cost of such investigation shall be certified by the commission and the same shall be audited and paid by the State in the same manner as other expenses are audited and paid.

Filed in the office of the secretary of state February 18, 1907.

CHAPTER 143.—*Hours of labor of employees on railroads.*

SECTION 1. Any person who owns or operates a steam railroad which is located wholly or partly in this State shall not permit or require any conductor, engineer, fireman, brakeman, or flagman, who, upon arrival at a terminal station, has been ten (10) or more consecutive hours on duty, to go again on duty until he has had at least ten (10) hours off duty. No conductor, engineer, fireman, brakeman, switchman, flagman, or telegraph operator shall be required or permitted to remain on duty more than fourteen (14) consecutive hours, except when longer consecutive service becomes necessary because of fires or wrecks or washouts or other unavoidable delays or unforeseen emergencies.

SEC. 2. The manager or superintendent of any person owning or operating a steam railroad located wholly or partly in this State, or any other official charged with the management or control or operation of such railroad, or any part thereof, shall be responsible, as well as the owner thereof, for a violation of the provisions of this act; and any one or more of said persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than \$100 nor more than \$500, or by imprisonment in the county jail not less than six months nor more than one year, or by both such fine and imprisonment.

Filed in the office of the secretary of state, February 25, 1907.

CHAPTER 157.—*Examination and licensing of barbers.*

SECTION 1. Section 4 of an act to regulate the pursuit, business, art and avocation of a barber, * * * is hereby amended to read as follows:

Section 4. No person shall be permitted to pursue the business, art or avocation of a barber within the State of Oregon, nor be entitled to registration as a registered barber in this State, unless he shall have followed the occupation of a barber for at least three years, either as an apprentice or barber, or as apprentice and barber; any person

desiring to obtain a certificate under this act shall make application in writing to the State Board of Barber Examiners in the manner prescribed by said board, such application must be verified by the oath of the applicant; the applicant shall with his application pay to the treasurer of the State Board of Barber Examiners a fee of \$5, and shall present himself at the next regular meeting of the board for the examination of applicants, whereupon said board shall proceed to examine such person, and if satisfied that such applicant is qualified to practice the business, art and avocation of a barber, his name shall be entered by the board upon the register kept by them: *Provided*, That whenever it shall appear that the applicant has acquired his knowledge of the barber business in a barber school or college, the board shall be the judges as to whether or not such barber school or college is properly appointed and conducted so as to give sufficient training in such business; and the State Board of Barber Examiners and each member thereof is hereby authorized at all reasonable times during business hours to visit any and all barber schools or colleges in this State for the purpose of seeing whether or not students in such barber schools or colleges are receiving proper instruction and training, and to see that no provision of the law relating to the pursuit, business, art and avocation of a barber is being violated in any such school or college, and to see that such schools and colleges are conducted and managed in a skillful, cleanly and sanitary way. It shall be the duty of every proprietor, instructor or person in charge of every barber school or college in this State to keep posted in at least two conspicuous places in such barber school or college, so that the same may be seen and read by all students therein, copies of the by-laws of the said State Board of Barber Examiners and the rules and regulations governing barber shops, schools and colleges in the State of Oregon, adopted by the said board and in force in this State: *Provided, also*, That it shall be in the discretion of the said board to allow the time spent by any person in any barber school or college in this State to apply on the time required to be spent in following the occupation of a barber to entitle a person to registration under the act; and the said board is hereby empowered to adopt and prescribe reasonable rules and regulations governing the equipment and conducting of any barber school or college within the State of Oregon. A neglect or failure of the manager or person in charge of any barber school or college in this State to post and keep posted in at least two conspicuous places in such barber school or college, the by-laws of the State Board of Barber Examiners and the rules and regulations governing barber shops, schools and colleges in the State of Oregon, adopted by said board and in force in this State, shall be sufficient reason for the revocation by said board of the certificate of registration of any registered barber in charge of or giving instruction in any such barber school or college in the manner provided in section 8 of said act, and any violation of any of the rules and regulations governing barber shops and colleges in the State of Oregon adopted by the State Board of Barber Examiners and in force in this State by the person in charge of, or any instructor in any barber school or college in this State, shall be sufficient reason for the revocation by said board of the certificate of registration as a registered barber of the person guilty of such violation in the manner provided in section 8.

All persons making application under the provisions of this act shall be allowed to practice until the next regular meeting of the board.

Filed in the office of the secretary of state, February 25, 1907.

CHAPTER 158.—*Factories and workshops—Inspection, etc.*

[See Bulletin No. 73, pp. 942-945.]

CHAPTER 161.—*Hours of labor of employees in mines.*

SECTION 1. No person who operates any underground mine yielding gold or silver or copper or lead or other metal shall permit or require any person to work in such underground mine for more than eight hours in any twenty-four hours and the hours of employment in such employment or work day shall be consecutive, excluding, however, any intermission of time for lunch or meals; but, in the case of emergency, where life or property is in imminent danger, persons may work in such underground mines for a longer time during the continuance of the exigency or emergency. This act shall not apply to mines in their first stages of development, such as tunnel work to a length of 200 feet, or shaft work to a depth of 150 feet, or to any surface excavation.

SEC. 2. Any person, persons, body corporate, general manager or employer who shall violate or cause to be violated any of the provisions of section 1 of this act, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than fifty (\$50) dollars, nor more than three hundred (\$300) dollars, or by imprisonment of not less than 30 days, nor more than three months. And the court shall have discretion to impose both fine and imprisonment as herein provided.

Filed in the office of the secretary of state, February 25, 1907.

CHAPTER 163.—*Payment of wages in scrip—Attorneys' fees in suits for wages.*

SECTION 1. No person or corporation engaged in any business or enterprise of any kind in this State shall issue, in payment of or as an evidence of indebtedness for wages due an employee, any order, check, memorandum or other acknowledgment of indebtedness, unless the same is negotiable, and is payable without discount in cash on demand at some bank or other established place of business in the county where the same is issued; and such person or corporation shall, upon presentation and demand, pay any such order, check, memorandum, or other acknowledgment of indebtedness, in lawful money of the United States: *Provided, however,* That nothing herein contained shall in any way limit or interfere with the right of any such employee to accept from any such person or corporation, as an evidence or acknowledgment of indebtedness for wages due him, a negotiable instrument, payable at some future date with interest.

SEC. 2. Whenever an employer discharges an employee, all wages earned and unpaid at the time of such discharge, shall become due and payable immediately. When any such employee, not having a contract for a definite period, shall see fit to quit or resign his employment, all wages earned and unpaid at the time of such quitting or resignation shall become due and payable immediately: *Provided,* Such employee shall have given not less than three days' notice of his intention to quit his employment; but when any number of employees enter upon a strike, the wages due such striking employees at the time of entering upon such strike, shall not become due and payable until the next regular pay day after commencement of such strike: *Provided,* That the time between the commencement of the strike and such next regular pay day does not exceed a period of thirty days.

SEC. 3. In any action for the collection of any such order, check, memorandum, or other acknowledgment of indebtedness, or in any action by an employee against an employer for the collection of wages, if it is shown that such order, check, memorandum, or other acknowledgment of indebtedness, or said wages were not paid for a period of forty-eight hours after proper demand for the payment thereof, the court may, in its discretion, upon entering judgment for the plaintiff, include in such judgment, in addition to the costs and disbursements otherwise prescribed by statute, a reasonable sum for attorney's fees for prosecuting said action: *Provided,* Such employee shall have given not less than three days' notice of his intention to quit his employment.

Filed in the office of the secretary of state, February 25, 1907.

CHAPTER 190.—*Hours of labor of employees on public works.*

SECTION 1. Eight hours shall constitute a day's work for all laborers and mechanics now employed or who may hereafter be employed by the State of Oregon, or by any county in said State, unless otherwise ordered as to any county by vote of the legal electors of said county, except in cases of extraordinary emergency when it may be necessary to work more than eight hours per calendar day for the protection of property or human life: *Provided,* That in all such cases such laborers and mechanics so employed and working to exceed eight hours per calendar day shall, for such overtime, be paid at the rate of one and one-half times the rate of pay allowed for the same amount of time during the eight hours' service: *And provided, further,* That the provisions of this act shall not apply to any employees of any State institution except the penitentiary.

SEC. 2. Any person violating any of the provisions of this act shall for each offense be punished by a fine of not less than \$100 nor more than \$1,000, or by imprisonment not more than six months, or by both fine and imprisonment, in the discretion of the court.

Filed in the office of the secretary of state, February 25, 1907.

CHAPTER 191.—*Railroads—Overhead wires.*

SECTION 1. It shall hereafter be unlawful for any corporation or person to string any wire, electric or other, over the tracks of any railroad company, except at such places and in such manner as shall be authorized and approved by the county court of the county wherein such crossing with such wire is proposed, said county court sitting for the transacting of county business, and any corporation or person desiring to so string any wire shall give such railroad company notice in writing of the place and manner in which it desires to string the same, and the place where and the time when it will apply to said county court sitting for the transaction of county business for approval and authority as above required, which notice shall be served at least ten days before the time of hearing of such application.

SEC. 2. The county courts of the several counties in the State of Oregon shall, as soon as possible after the passage of this act, either by personal examination or otherwise, obtain information as to all places where the tracks of railroad are crossed by wires strung over said tracks, and whenever in its judgment such wires should be raised to a greater height, or other thing done with reference thereto to guard against accidents, shall order such change or changes to be made, and shall apportion any expense incident thereto between the companies or persons affected as may be deemed just and reasonable: *Provided*, That in no case shall the height of any wire strung or to be strung across or over such or any railroad tracks be less than twenty-five feet, excepting trolley wires, which shall not be less than twenty-three feet from the top of the rail of said railroad tracks.

SEC. 3. It shall be the duty of every corporation and person to whom an order made by the county court of the respective counties in said State under this act shall be directed, to comply with such order in accordance with its terms, and for any neglect to so comply therewith any such corporation or person shall be liable to a penalty of \$100, and to a like penalty for every ten days during which said neglect shall continue. Any such penalty may be recovered by an appropriate action instituted by the county where such violation or disobedience has been committed, and said penalty shall be recovered by said county, and it shall be the duty of the prosecuting attorney of the district in which said county is located to bring and prosecute any such action in the name of the county at the request of the said county court sitting for the transaction of county business.

Filed in the office of the secretary of state, February 25, 1907.

CHAPTER 192.—*Coercion of employees—Choice of boarding houses, stores, etc.*

SECTION 1. It shall be unlawful for any person or corporation to compel by threats or intimidation, or threats of discharge, or to use any means to compel an employee against his will to board at any particular hotel, boarding house or other place where lodgings or board may be provided, or to require an employee to purchase goods and supplies at any particular store.

SEC. 2. Any person violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine in a sum of not less than twenty-five (\$25) dollars nor more than one hundred (\$100) dollars, or by imprisonment in the county jail not less than ten nor more than thirty days, or by both such fine and imprisonment.

Filed in the office of the secretary of state, February 25, 1907.

CHAPTER 200.—*Employment of women—Hours of labor—Seats.*

[See Bulletin No. 73, pp. 779, 780.]

PENNSYLVANIA.

ACTS OF 1907.

ACT No. 67.—*Protection of employees on buildings.*

SECTION 1. Whenever complaint is made to the mayor, director of public safety, superintendent of police, or other persons in charge of the police force, in any city of the first, second or third class in this State, that the scaffolding, or slings, hangers, blocks, pulleys, stays, braces, ladders, irons, or ropes of any sling or stationary scaffolding, used in the construction, alteration, repairing, painting, cleaning, or pointing of buildings, within the limits of any city aforesaid, are unsafe, or liable to prove dangerous to life or limb of any person, such mayor, director of public safety, superintendent of police, or other person in charge of the police force, shall immediately cause an inspection to be made of such scaffolding, or the slings, hangers, blocks, pulleys, stays, braces, ladders, irons, ropes or other parts connected therewith. If, after examination, such scaffolding or any of such parts is found to be dangerous to life or limb, the mayor, director of public safety, superintendent of police, or other persons in charge of the police force, shall prohibit the use thereof, and require the same to be altered and reconstructed so as to avoid such danger. The person directed to make such inspection shall attach such certificate to the scaffolding, or the slings, hangers, irons, ropes, or other parts thereof, examined by him, stating that he has made such examination, and that he has found it safe or unsafe, as the case may be. If he declare it unsafe, he shall at once, in writing, notify the person responsible for its erection of *the fact*, and warn them against the use thereof. Such notice shall be served personally

upon the person responsible for the erecting, or by conspicuously affixing it to the scaffolding or part thereof to be declared unsafe. After such notice has been so served or affixed, the person responsible therefor shall immediately remove such scaffolding or part thereof, and alter or strengthen it in such manner as to render it safe, in the discretion of the person who has examined it, or of his superiors. Any person whose duty it is to examine or test any scaffolding or part thereof, as required by this act, shall have free access at all reasonable hours to any building or premises containing them, or where they may be used.

SEC. 2. If any scaffolding or staging, swung or suspended from an overhead support or supports, shall be more than ten feet from the ground or floor, the same shall be deemed unsuitable and improper, and as not giving proper protection to the life and limb of any person employed or engaged thereon, unless such scaffolding or staging shall, when the same is in use, have a safety rail, rising at least thirty-four inches above the floor or main portion of such scaffolding or staging, and extending along the outside thereof the entire length of the outside thereof, properly attached thereto, and unless such scaffolding or staging shall be provided with braces so as to sustain the weight of a man's body leaning against it, and prevent the scaffolding or staging from swaying from the building or structure.

SEC. 3. All swinging and stationary scaffolding shall be so constructed as to bear four times the maximum weight to be dependent therefrom or placed thereon when in use, and not more than three men shall be allowed on any swinging scaffolding at one time.

SEC. 4. Any person who violates, or omits to comply with, any of the foregoing provisions of this act, or who suffers or permits the use of any article or scaffolding declared by a proper officer to be defective, or who destroys or defaces any notice posted in accordance with the provisions of this act, or who hinders or obstructs any officer who may be detailed to enforce its provisions, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding five hundred dollars or by imprisonment not exceeding six months, or both, at the discretion of the court.

Approved the 15th day of April, A. D. 1907.

ACT No. 90.—*Employment offices.*

SECTION 1. The director of the department of public safety, in cities of the first and second class in this Commonwealth, shall, upon petition, license and regulate employment agencies therein, as hereinafter provided.

SEC. 2. The term "person," used in this act, means and includes any individual, company, association, partnership, corporation or their agents. The term "licensed person" means and includes any person licensed under the provisions of this act. The term "employment agency" means and includes any person who procures, offers to procure, promises to procure, attempts to procure, or aids in procuring, either directly or indirectly, help or employment for another, where any fee, remuneration, privilege, profit, or any consideration, of any nature whatsoever, is promised, paid, or received therefor, either directly or indirectly. The term "fee" means and includes money, or a promise to pay money, and every form of and nature of remuneration, privilege, profit, or consideration, promised, paid, or received, directly or indirectly, for any service, of whatsoever nature, performed, offered to be performed, or promised to be performed by such employment agency. The term "privilege" means and includes the furnishing of food, liquors, supplies, tools, and shelter to laborers. The term "applicant for employment" means any person seeking work, employment, or engagement of any lawful character. The term "applicant for help" means any person or persons seeking help, employees, or performers in any legitimate enterprise; and the meaning of the terms "employment" or "help" shall not be limited to mean manual occupation, but shall include professional, and all legitimate, service.

SEC. 3. No person shall open, operate, maintain, or conduct, either temporarily or otherwise, any employment agency, or perform any of the acts authorized to be performed by an employment agency, in any city of the first or second class, without procuring a license from the director of public safety, as provided herein. The application for a license must be made in a form prescribed by the director of public safety, and may be made at any time; but every such license shall expire on the first day of October following its issue, unless sooner surrendered or revoked. Every applicant for a license shall furnish to the director of public safety, at the time of making his application for a license, a statement containing the full name of the applicant, his place of residence, and a description of the premises on which he desires to conduct an employment agency. If the applicant is a corporation, the application must specify also the names and addresses of the president, treasurer, and secretary thereof, or other officers performing corresponding duties under different

names; and the director of public safety may, in his discretion, require the names and addresses of all the officers, including the directors, of any corporate applicant for a license. If the applicant is a partnership or unincorporated association, the names and addresses of all the members thereof must be specified in the application. The application must be subscribed by the applicant or applicants therefor, if natural persons; and if a corporation, in the corporate name, by the president or chief officer thereof, attested by the secretary or assistant secretary, with the corporate seal attached. Each application must state that the applicant or applicants is or are the person or persons who have the sole beneficial interest in the business established or to be established, and must have attached thereto an affidavit that all the statements contained in the application are true. The statements contained in said application for a license shall be received in evidence in all courts of this Commonwealth and shall be competent and sufficient prima facie evidence of all the facts stated therein; and for each and every misstatement in said application a city magistrate, justice of the peace, or any inferior magistrate, having original jurisdiction in criminal cases, shall have summary jurisdiction, and the right to impose, for each such misstatement, a fine of twenty-five (25) dollars. The application for a license shall be accompanied by the affidavit of two freeholders, of the ward in which the agency is sought to be established, that the applicant is a person of good moral character; or, if a corporation, that the officers thereof, and those under whose direction the business of the employment agency is to be carried on, are persons of good moral character; and the director of public safety may also require any other statements to be made in the application which he may deem necessary. A fee of fifty (50) dollars, for the use of the city, shall accompany each application for a license, which fee shall be returned if the license is not granted. Every application for a license shall be filed not less than one week prior to the granting thereof, and notice thereof shall be posted in the office of the director of public safety from the date of filing until the date of final action thereon, and a written protest may be made by any person against the granting of such license. The director of public safety shall either grant or reject said application for a license within thirty days from the time of the filing thereof.

SEC. 4. Each applicant shall file with his application for a license a bond, in form approved by the director of public safety, in the penal sum of one thousand (\$1,000) dollars, with one or more sufficient sureties, conditioned that the applicant will not violate any of the duties, terms, conditions, provisions, or requirements of this act. If any person shall be aggrieved by the misconduct of any such licensed person, in violating any of the provisions of this act, and shall recover judgment against him therefor, such person may, after the return unsatisfied, either in whole or in part, of any execution issued upon said judgment, maintain an action in his own name, upon the bond of said licensed person, in any court having jurisdiction of the amount claimed, provided such court shall, upon application made for the purpose, grant leave to bring such action.

SEC. 5. The license certificate shall be furnished by the director of public safety, and shall be printed in a suitable manner. Such license shall not be used by any other than the person to whom it is issued, or at any place other than that designated in the certificate, and shall not be transferred or assigned to any other person. If a person holding a license certificate, authorizing him to conduct an employment agency under the provisions of this act, against whom no complaint, prosecution, or action is pending on account of any violation thereof, shall voluntarily surrender such license certificate, provided it has at least one month to run, the director of public safety shall refund to the person the sum of four dollars for each month which the certificate has yet to run, commencing with the first day of the month succeeding the one in which said license certificate is surrendered, unless such surrender be on the first day of the month. Every licensed person shall post his license certificate in a conspicuous place in his agency. If for any cause, as hereinafter provided in sections nine, ten, and eleven, such license is revoked, the director of public safety shall not issue another license to said person, to his representative, to his agent, or to any person with whom he is to be associated in the employment agency business. Whenever such license is revoked for violation of other provisions of this act, the director of public safety may, in his discretion, reissue a license, but not within a period of six months.

SEC. 6. No such agency shall be located on premises, or in connection with a building or premises, where intoxicating liquors are sold to be consumed on the premises, excepting cafes or restaurants in office buildings. No person shall procure or offer to procure help or employment in a room or rooms adjoining, either laterally or vertically, a room where intoxicating liquors are sold to be consumed on the premises, and no licensed person shall furnish intoxicating liquors to any applicant for employment.

SEC. 7. Every licensed person shall keep accurate records, in the English language, in a form approved by the director of public safety, in which he shall enter or cause to be entered the name and address of every applicant to whom employment is promised or offered, the date of such application, the amount of the fee demanded, charged, or received, and, whenever possible, the name and address of former employers of persons to whom such applicant is known. In a separate register said licensed person shall enter or cause to be entered the name and address of every applicant to whom help is promised, the date of such application, the kind of help requested, the names of persons sent, with the designation of the one employed, the amount of the fee received, and the rate of wages agreed upon. The said records shall be open, during business hours, to inspection by the director of public safety, his deputy, or duly appointed inspectors, and it shall be unlawful for any person to make any false entry therein.

SEC. 8. The rate of fees which such licensed person intends to charge must be filed with the director of public safety, and a plain and legible duplicate, signed by the director of public safety, shall be conspicuously posted in each room of such agency. No such licensed person shall charge a fee in excess of the rates aforesaid, or receive or accept any valuable thing or gift as a fee or pledge, or in lieu thereof. The fee charged applicants for help or employment shall be good for a period of one month, and no additional or other fee shall be charged for any service rendered by such agency during this time, except when the employment or engagement is of a temporary nature, not to exceed in any single contract one month, then the fee shall not exceed ten per centum of the salary paid. Failure of said applicant for help to notify said licensed person that such help has been obtained, through means other than said agency, shall entitle said licensed person to retain the entire fee. In case an applicant for help or employment shall not obtain such through said agency, such licensed person shall, on demand, repay the full amount of the fee paid therefor, allowing a time which the director may deem reasonable to determine the fact of the applicant's failure to obtain help or employment. When, however, upon evidence satisfactory to the director of public safety, it appears that said licensed person has in good faith made an honest attempt to procure help or employment for said applicant, he will be entitled to retain, of such fee paid, an amount not exceeding fifty cents. It shall be the duty of such licensed person to give to every applicant for employment or help, from whom a fee shall be received, a receipt, in which shall be stated the name and address of said applicant, the date and amount of the fee, the period for which the fee is good, and the kind of employment or help for which it is paid. No fee or other payment shall be accepted by any such licensed person for any other purpose, except as herein provided, and no such licensed person shall divide fees with, or pay commissions to, persons to whom applicants are sent for employment. Every such licensed person shall post in a conspicuous place, in each room of his agency, a plain and legible copy of this act, which shall be printed in languages which persons commonly doing business with such agency can understand, and upon which appears the name and address of the office of the director of public safety, and advising that any misconduct on the part of any one connected with such agency should be reported to him.

SEC. 9. Whenever an applicant for employment is sent out of the city in which said agency is located, under contract for labor, he shall be furnished, at the time the agreement is consummated, and in a language which he can understand, a memorandum showing his destination, written in full, the name and address of his employer, the nature of the work to be performed, hours of labor (except in household), wages offered, and the terms of transportation. A duplicate shall be filed in said agency. Every such licensed person shall give to every applicant for employment, sent to a place within the city, a card containing the printed name and address of such employment agency, together with the name and address of the person to whom said applicant is sent for employment. No such licensed person shall furnish employment to any child, in violation of the laws regulating the labor of children or their compulsory attendance at school.

SEC. 10. No such licensed person shall furnish any female employee for immoral purposes; or send or cause to be sent any female employees to enter, as servant or inmate, or for any purpose whatsoever, any place of bad repute, house of ill fame or assignation house, or any house or place of amusement kept for immoral purposes, the character of which such licensed person could have ascertained upon reasonable inquiry. No such licensed person shall knowingly admit, or allow to remain in said agency, any person of bad character, prostitute, gambler, or intoxicated person.

SEC. 11. No such licensed person shall publish or cause to be published any false or fraudulent or misleading advertisement or notice relating to his employment agency; nor shall any such licensed person advertise his employment agency by

means of cards, circulars, or signs, in newspapers or other publications, unless all such advertisements shall set forth the name of the agency, as such, and its address; nor shall any such licensed person use any letter heads, receipts or blanks not containing the name and address of such agency. No such licensed person shall give any false information, or make any false representation, concerning employment to any applicant, either for employment or help. No such licensed person shall send out any applicant without having obtained a bona fide order from the prospective employer, to whom said applicant is sent.

SEC. 12. The enforcement of this act, in each city of the first or second class, shall be intrusted to the director of public safety of said city, who is hereby authorized and empowered to appoint a deputy, who shall exercise all the powers of the director of public safety conferred by this act, and one or more inspectors, who shall have no duties to perform other than the enforcement of this act. The director of public safety shall also appoint such clerks and other assistants as may be required to enforce this act. The salaries of such deputy inspector, or inspectors, clerks, and assistants, shall be determined and provided by the councils of said city. Each agency, at least once in two months, shall be visited by an inspector, who shall make a written report thereof to the director of public safety, which shall be preserved in his office. All complaints shall be considered and disposed of by the director of public safety, or his deputy, after an investigation by an inspector under his direction. Complaints against any such licensed person may be made, orally or in writing, to the director of public safety or to his deputy, and notice of such complaint shall forthwith be given to said licensed person by the director of public safety or his deputy, and a hearing thereon shall be given by the director of public safety or his deputy, within three days after notice is given to said licensed person. A record shall be kept of all such complaints and hearings. The director of public safety or his deputy shall refuse to issue, or shall revoke, any license for a violation of any of the provisions of this act; but reasonable opportunity shall be given an applicant or the licensed person to defend himself. When it is shown to the satisfaction of the director of public safety or his deputy that any such licensed person is guilty of any immoral or fraudulent act, in connection with the conduct of his agency, it shall be the duty of the director of public safety or his deputy forthwith to revoke his license.

SEC. 13. Any person who shall open or conduct an employment agency, in any city of the first or second class, without procuring a license as required by this act, shall be guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine of not less than fifty nor more than five hundred dollars, or by imprisonment not exceeding one year, or both, at the discretion of the court.

Any licensed or other person who violates any of the provisions of this act shall be guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine of not more than one hundred dollars, or by imprisonment for not more than one year, or both, at the discretion of the court.

SEC. 14. The provisions of this act shall not apply to agencies which procure employment for school teachers exclusively; nor to registries of any incorporated association of nurses; nor to bureaus conducted by recognized medical institutions; nor to agencies exclusively engaged in procuring executive, technical, clerical, or sales positions for men only; nor to departments or bureaus maintained by persons, firms, or corporations, or associations, for the purpose of obtaining help for themselves, where no fee is charged the applicant for employment.

Approved the 25th day of April, A. D. 1907.

Act No. 162.—*Payment of wages due deceased employees.*

SECTION 1. From and after the passage of this act, it shall be lawful for any employer in this Commonwealth, at any time not less than thirty days after the death of his employee, to pay all wages due to such deceased employee to the wife, children, father or mother, sister or brother (preference being given in the order named) of the deceased employee, without requiring letters of administration to be issued upon the estate of said deceased employee, where such wages due do not exceed seventy-five dollars in amount: *Provided, however,* That if such deceased employees shall not leave a wife, children, father, mother, sister, or brother surviving him, then it shall be lawful for said employer to pay the wages due such deceased employee to the creditors, as follows: Undertaker, physician, boarding house keeper, and nurse, each his or her pro rata share of wages, not exceeding seventy-five dollars, due the deceased, upon affidavit of fact furnished, without letters of administration being issued.

SEC. 2. The payment of such wages shall be a full discharge and release to the employer from the wages so due and paid.

Approved the 23d day of May, A. D. 1907.

ACT No. 167.—*Civil service—Labor service.*

SECTION 9. All examinations for positions in the classified service shall be practical in their character, and shall relate to such matters, and include such inquiries, as will fairly and fully test the comparative merit and fitness of the persons examined to discharge the duties of the office or employment sought by them. All examinations shall be open to all applicants who have fulfilled the preliminary requirements, stated in section ten of this act. The examinations of applicants for employment as laborers shall relate to their capacity for labor, their habits as to sobriety and industry, and their experiences in the kind of work for which they apply. All applicants for any position in the classified service may, subject to regulations adopted by the civil service commission, be required to submit to a physical examination before being admitted to the regular examinations held by the commission. * * *

SEC. 19. The labor class shall include ordinary, unskilled laborers. Vacancies in the labor class shall be filled by appointment from lists of applicants registered by the civil service commission. Preference in employment from such lists shall be given according to regulations to be prescribed by the commission. The commission may establish separate labor lists for various institutions and departments. The commission shall require an applicant for registration for the labor service, before he can be registered, to furnish such evidence or to pass such examinations as it may deem proper with respect to his age, residence, physical condition, capacity for labor, sobriety, industry, and experience in the kind of work for which he applies.

Approved the 23d day of May, A. D. 1907.

ACT No. 206.—*Payment of wages of miners—Removing or defacing checks, etc.*

SECTION 1. Any person who willfully shall, from any loaded coal car in or about any mines, breaker, or yard, in this Commonwealth, take, remove, sever, carry away, obliterate, or destroy any ticket, card, tin slip, or other device or sign, used to indicate or identify the person or persons to whom credit or pay is or shall be due for the mining of coal in said car, or for the loading of said car, for the purpose of depriving such person or persons from getting credit or pay for said car, or for the purpose of defrauding such person in any manner, shall be deemed guilty of misdemeanor, and, upon conviction therefor, shall be sentenced to pay a fine not exceeding one hundred dollars or to undergo an imprisonment not exceeding one year, or either or both, at the discretion of the court; and the jury trying the case may infer such intent from the fact of taking, removing, carrying away, severing, obliterating, or destroying, in any manner, of such tickets, card, tin slip, or other device or sign, as aforesaid.

Approved the 28th day of May, A. D. 1907.

ACT No. 237.—*Employment of children—School attendance.*

[See Bulletin No. 73, pp. 782, 783.]

ACT No. 241.—*Employment of children—School attendance.*

[See Bulletin No. 73, pp. 783, 784.]

ACT No. 250.—*Accidents on railroads.*

SECTION 13. The [state railroad] commission shall investigate the cause of any accident on the lines or property of any common carrier, resulting in loss of life or injury to persons, within thirty days of the happening of said accident, when, in their judgment, said accident shall require investigation; and shall advise said common carrier of the result of said investigation, within sixty days from the happening of said accident, and shall include the result of said investigation in their reports. Before making any such examination or investigation, under this section, reasonable notice shall be given to the corporation, person, or persons, conducting and managing such common carrier, of the time and place of commencing the same. The general superintendent or manager of every common carrier shall inform the commission of any such accident immediately after its occurrence.

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Approved the 31st day of May, A. D. 1907.

ACT No. 328.—*Liability of railroad companies to workmen not employees.*

SECTION 1. The first section of an act, entitled "An act relating to railroad companies and common carriers; defining their liability, and authorizing them to pro-

vide means of indemnity against loss of life and personal injury," approved April fourth, eighteen hundred and sixty-eight, which reads as follows:

"When any person shall sustain personal injury or loss of life while lawfully engaged or employed on or about the roads, works, depots, and premises of a railroad company, or in or about any train or car therein or thereon, of which company such person is not an employee, the right of action and recovery in all such cases against the company shall be such only as would exist if such person were an employee: *Provided*, That this section shall not apply to passengers," is hereby repealed.

Approved the 10th day of June, A. D. 1907.

ACT No. 329.—*Liability of employers for injuries to employees.*

[See Bulletin No. 74, pp. 81, 82.]

PHILIPPINE ISLANDS.

ACTS OF U. S. PHILIPPINE COMMISSION—1907.

ACT No. 1582.—*Protection of employees as voters.*

SECTION 29.

* * * * *

Any person who influences or attempts to influence a voter to give or to withhold his vote at an election by threatening to discharge such voter from his employment or to reduce his wages, or by promising to give him employment at higher wages, and any person who discharges any voter from his employment or reduces his wages for giving or withholding his vote at an election, shall be punished by imprisonment for not less than thirty days nor more than one year, or by a fine of not less than two hundred pesos nor more than five hundred pesos, or both, in the discretion of the court.

* * * * *

Enacted, January 9, 1907.

ACT No. 1602.—*Examination, etc., of steam engineers—Coast trade.*

SECTION 1. Section one of act numbered seven hundred and eighty, * * * is hereby amended to read as follows:

Section 1. A board is hereby created, to consist of the insular collector of customs, the supervising inspector of hulls and boilers, and assistant inspector of hulls, one person holding an unexpired license as master in the Philippine coastwise trade, and one other competent person, whose duty it shall be to examine and certify for licenses all applicants for licenses as watch officers and engineers upon vessels of the Philippine Islands. The insular collector of customs shall be president of the board ex officio, and any three members thereof shall constitute a quorum for the transaction of business. This board shall be known and referred to as the "Board on Philippine Marine Examinations." The insular collector of customs is authorized to designate the persons who shall constitute the board, from among the classes above enumerated, and to detail from the clerical force provided for the bureau of customs a competent person to serve as secretary of the board without additional compensation: *Provided*, That nothing in this section shall be construed to make such secretary a member of the board for any other purpose: *And provided further*, That the expenses of the said board shall be paid from the regular appropriation for the bureau of customs.

Enacted, March 12, 1907.

RHODE ISLAND.

ACTS OF 1907.

CHAPTER 1429.—*Factories and workshops—Supply of drinking water.*

[See Bulletin No. 73, p. 964.]

CHAPTER 1458.—*Employment of children—Age limit.*

[See Bulletin No. 73, p. 792.]

SOUTH CAROLINA.

ACTS OF 1907.

ACT No. 233.—*Hours of labor in cotton and woolen mills.*

[See Bulletin No. 73, p. 796.]

ACT No. 259.—*Emigrant agents.*

SECTION 1. No person shall carry on the business of an emigrant agent in this State without having first obtained a license therefor from the county treasurer of each county in which he solicits emigrants. Any person shall be entitled to a license, which shall be good for one year, upon payment into the county treasury, for the use of said county, two thousand dollars in each county in which he operates or solicits emigrants, for each year so engaged. Any person doing business of an emigrant agent without having first obtained said license, shall be deemed guilty of a misdemeanor and, upon conviction, shall be punished by fine, not less than one thousand dollars and not more than five thousand dollars, or may be imprisoned in the county jail or on the public works not less than four months, or confined in the state prison, at hard labor, not exceeding two years for each and every offense, within the discretion of the court.

SEC. 2. The term "emigrant agent," as contemplated in this act, shall be construed to mean any person engaged in hiring laborers or soliciting emigrants in this State, to be employed beyond the limits of the same.

Approved the 20th day of February, A. D. 1907.

SOUTH DAKOTA.

ACTS OF 1907.

CHAPTER 135.—*Employment of children.*

[See Bulletin No. 73, p. 797.]

CHAPTER 219.—*Liability of railroad companies for injuries to employees.*

[See Bulletin No. 74, pp. 85, 86.]

CHAPTER 220.—*Hours of labor of employees on railroads.*

SECTION 1. No common carrier, nor any officer nor agent thereof, shall require or permit any employee engaged in or connected with the movement of any train to remain on duty more than sixteen consecutive hours, or require or permit any such employee who has been on duty sixteen consecutive hours to go on duty without having had at least ten hours off duty, or require or permit any such employee who has been on duty sixteen hours in the aggregate in any twenty-four hour period to continue on duty or to go on duty without having had at least eight hours off without duty within such twenty-four hour period.

SEC. 2. In any prosecution for a violation of the preceding section, it shall be a sufficient defense to show that the employee was prevented from reaching his terminal by any casualty occurring before he started on his trip, or by accident or unexpected delay of trains scheduled to make connections with the train on which such employee was serving.

SEC. 3. Any common carrier and any officer or agent thereof violating any of the provisions of section one of this act shall, upon conviction thereof, be punished by a fine of not less than \$100 or more than \$1,000.

SEC. 4. The board of railroad commissioners shall fully investigate all cases of violation of this act, and for that purpose may subpoena witnesses, administer oaths, interrogate witnesses, take testimony and require the production of books and papers either within or without the State, and shall lodge with the proper state attorneys information of such violations as may come to its knowledge.

SEC. 5. The provisions of this act shall not be applied to relief or wreck trains.

Approved, February 13, 1907.

CUMULATIVE INDEX OF LABOR LAWS AND DECISIONS RELATING THERETO.

[This index includes all labor laws enacted since January 1, 1904, and published in successive issues of the Bulletin, beginning with Bulletin No. 57, the issue of March, 1905. Laws enacted previously appear in the Tenth Special Report of the Commissioner of Labor. The decisions indexed under the various headings relate to the laws on the same subjects without regard to their date of enactment and are indicated by the letter "D" in parenthesis following the name of the State. Opinions of the Attorney-General on the construction, etc., of labor laws are similarly indexed, and are indicated by the abbreviation "Op." in parenthesis.]

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